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REMOVAL PROGRAM
PRELIMINARY ASSESSMENT/
SITE INVESTIGATION REPORT
FOR THE
BATES MILL SITE
LEWISTON, MAINE
10 TO 11 MARCH 1998

Prepared For:

U.S. Environmental Protection Agency
Region I
Emergency Planning and Response Branch
John F. Kennedy Federal Building
Boston, MA 02203

CONTRACT NO. 68-W5-0009

TDD NO. 98-03-0002-A

PCS NO. 3435

DC NO. R-1390-D

Submitted By:

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April 1998

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I. Preliminary Assessment/Site Investigation Forms

EPA REGION I
REMOVAL PRELIMINARY ASSESSMENT

Site Name and Location

Name: Bates Mill **Location:** 65 - 177 Canal Street
Town: Lewiston **County:** Androscoggin **State:** Maine

Site Status: ( )**NPL** (X)**NON-NPL** ( )**RCRA** ( )**TSCA**
(X)**ACTIVE** (X)**ABANDONED** (X)**OTHER**

Many small active businesses occupy space in the mill complex; however, the majority of the complex is either empty or being revitalized for redevelopment.

(X)**Attached USGS Map of Location** ( )**Site I.D. No.:** None

Latitude: 44° 05' 47" North **Longitude:** 70° 13' 10" West

Referral

( )**Citizen** ( )**City/Town** ( )**State** ( )**Preremedial**
( )**RCRA** (X)**Other:** U.S. Environmental Protection Agency (EPA) Brownfields Coordinator
Name of referring party: Carol Tucker **Phone:** (617) 573-5731
Address: U.S. Environmental Protection Agency
JFK Federal Building, Boston, MA

Contacts Identified

1) Allan Turgeon, Lewiston Mill Redevelopment Corporation **Phone:** (207) 782-5355
2) John Bott, City of Lewiston, Maine **Phone:** (207) 784-2951

Source of Information

( ) **Verbal:**
(X) **Report:** Phase 1 Environmental Site Assessment Report, Bates Mill Complex, Lewiston, Maine, by Summit Environmental Consultants, Inc., December 13, 1996

(X) **Other:** Bates Mill Community Brownfields Economic Redevelopment Initiative (Draft), City of Lewiston, Maine, 3 October 1997.

REMOVAL PRELIMINARY ASSESSMENT

Potential Responsible Parties

Owner: Bates Fabrics, Inc. **Phone:** ( ) Contact Operator
Address: non-existent, out of business

Operator: Lewiston Mill
Redevelopment Corporation **Phone:** (207) 782-5355

Address: Bates Mill Enterprise Complex
35 Canal Street
Lewiston, Maine 04240

Site Access

Authorizing Person: John Bott
Date: 3 March 1998 (X) **Obtained** (X) **Verbal**
Phone: 207-784-2951, x-315 ( ) **Not Obtained** ( ) **Written**

Physical Site Characterization

Background Information:
The Bates Mill Site (the site), which consists entirely of the Bates Mill Complex, is located at 65 - 177 Canal Street in Lewiston, Androscoggin County, Maine. According to a 1996 report documenting an investigation of the site by Summit Environmental Consultants, Inc. (SEC), the site is surrounded on all four sides by canals, and the Androscoggin River is located less than 0.25 miles to the west. Main Street is located just north of the site, Chesnut Street borders the site to the south, Canal Street is located to the east, and Lincoln Street to the west. The Bates Mill Complex, which consists of between 1.1 and 1.2 million square feet, was used for textile manufacturing from the 1820s through 1992. Primary activities conducted during this period included the weaving and dyeing of cotton and wool textiles. Several buildings within the complex are still actively used for textile operations, and other space has been occupied by various businesses; However, the majority of the mill complex is either empty or being revitalized for redevelopment.

In 1996, SEC conducted a Phase 1 Environmental Site Assessment (Phase 1 ESA) of the site on behalf of the current site owner, the City of Lewiston, Maine. During the Phase 1 ESA, polychlorinated biphenyls (PCB) samples were collected and an asbestos survey with confirmatory sampling was performed. Large quantities of fluorescent light ballasts (some leaking) suspected of containing PCBs were also observed, along with numerous labelled and

Physical Site Characterization (concluded)

unlabelled containers (5 to 55-gallon capacity) of chemicals and petroleum products.

Description of Substances Possibly Present, Known or Alleged:

More than 700 ballasts associated with used fluorescent lights, some of which are suspected of containing PCB-contaminated oil, are stored within the complex and show signs of oil leakage.

Asbestos samples collected primarily from pipe insulation indicated the presence of chrysotile asbestos (at levels ranging from 6.5 % to 65 %).

A variety of storage containers suspected of containing lubricants, oils, dyes, and miscellaneous chemicals used in textile manufacturing operations were observed during the Phase I ESA.

Existing Analytical Data

( ) **Real-Time Monitoring Data:** None

(X) **Sampling:** PCBs were detected in electrical transformers at levels up to 736 parts per million (ppm) by Transformer Service, Inc. in December 1994 (those transformers known to contain PCBs were later remediated). Other transformers (off-line) which have not yet been investigated are stored within the mill complex.

Chrysotile asbestos was detected at levels ranging from 6.5% to 65% in samples collected by SEC in August 1996 as part of the Phase I ESA.

PCB floor samples from areas stained with grease and oil were collected by SEC in October 1996 for laboratory analysis. Results indicated no PCB levels above detection limits.

Potential Threat

Description of potential hazards to environment and/or population -identify any of the criteria for a Removal Action (from NCP) that may be met by the site under 40 CFR 300.415 [b] [2].

i. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.

iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

vi. Threat of fire or explosion.

vii. The availability of other appropriate federal or state response mechanisms to respond to the release.

viii. Other situations or factors that may pose threats to public health or welfare or the environment.

Prior Response Activities

( ) **PRP** ( ) **STATE** ( ) **FEDERAL** (X) **OTHER** (City)

Brief Description:
SEC conducted a Phase 1 ESA at the site in 1996.

The City of Lewiston, Maine has subcontracted asbestos removal contractors to remove asbestos from portions of the mill.

Transformer Service, Inc. removed PCB-contaminated oil from three transformers in which the presence of PCBs was confirmed.

Two 25,000-gallon underground storage tanks (USTs) previously used to store heating oil were removed from the site in 1989, and a 1,000-gallon UST (containing gasoline) was removed in 1990.

Prior Response Activities (concluded)

A Brownfields Economic Redevelopment Initiative Application has been submitted to the U.S. EPA Brownfields Coordinator for consideration. The City of Lewiston currently has limited funds and means available to conduct a cleanup of hazardous substances present at the site.

Priority for Site Investigation

(X) High **( ) Medium** **( ) Low** **( ) None**

Comments: A high priority is given due to the confirmed presence of asbestos, the numerous labelled and unlabelled (5- to 55-gallon) containers of chemicals and petroleum products present, and the suspected presence of PCBs in areas that are frequented by workers and vandals. There is a high potential for a release of hazardous substances into the canals beneath the mill complex, which flow into the Androscoggin River.

Report Generation

Originator:	James F. Fein	**Date:** 10 April 1998
Affiliation:	Roy F. Weston, Inc. (START)	**Phone:** (781) 229-6430
TDD No.:	98-03-0002-A	**PCS No.:** 3435

EPA REGION I
REMOVAL SITE INVESTIGATION

Inspection Information

Site Name: Bates Mill **Address:** 65 - 177 Canal Street
Town: Lewiston **County:** Androscoggin **State:** Maine
Date of Inspection: 10 to 11 March 1998 **Time of Inspection:**
1015-1815 on 10 March 1998
0800-1615 on 11 March 1998
Weather Conditions: 10 March 1998 : Mostly Clear, 45°F
11 March 1998 : Mostly Clear, 20°F

Site Status at Time of Inspection: (X) **ACTIVE** (X) **INACTIVE**
Comments: Portions of the mill complex are actively used for textile manufacturing, and other spaces within the complex are occupied by various businesses. The majority of the complex, however, is either empty or being revitalized for redevelopment.

Agencies/Personnel Performing Inspection

	Names	Program
(X) **EPA:**	Paul Groulx	Emergency Planning and Response Branch (EPRB)
(X) **EPA Contractor:**	James Fein	Superfund Technical Assessment and Response Team (START)
	Eric Ackerman	START
	Jenifer Sullivan	START
	Patricia Coppolino	START

( ) **State:**

(X) **Other:** Mr. Allan Turgeon, Lewiston Mill Redevelopment Corp.

Current Owner Based on Field Interview: City of Lewiston, Maine

Physical Site Characteristics

Parameter	Quantities/Extent

(X) **Cylinders:** Six cylinders with attached tags labeled carbon dioxide ("CO_2") are located along the west wall of Mill No.1 near the entry way to No.1 Wing.

Physical Site Characteristics (continued;)

(X) Drums: Approximately 200 labeled and unlabeled drums of 30- to 55-gallon capacity, with liquid contents, were observed throughout the complex. In addition, several drums contained solid material including insulation debris suspected to be asbestos-containing material (ACM). Numerous drums were observed to be improperly staged in terms of physical placement as well as compatibility, and to be in poor condition. Leakage of materials from some of the drums was also noted. Material leaking from the drums could potentially impact the water which runs through the raceways located under the buildings. These raceways lead to the Androscoggin River, located less than 0.25 miles to the west.

Based on labeling information observed on the drums, the following hazardous substances are likely to be present: USCOSET-AM-1 (containing formaldehyde), DK-80 (potentially flammable), sodium nitrate, concentrated sodium hydrosulfite, germicides, dyes, 85% formic acid, ammonium sulfate, ammonium bifluoride, sodium hexameta-sulfate, miscellaneous oils and greases, transformer oil, adhesives, and ammonium bifluoride. Warning labels on some the drums indicated their hazardous nature (e.g.,potentially flammable, caustic, etc.).

( ) Lagoons:

(X) Tanks: **(X) Above:** Two approximately 20,000-gallon tanks (Mill No. 4/Bleachery, Basement), one approximately 10,000-gallon tank(No.1 Storehouse, Basement), one approximately 6,000-gallon tank (Mill No. 3 Annex), and one tank of undetermined capacity (Mill No. 3) were observed.

( ) Below:

(X) Asbestos: Suspected ACM, primarily in the form of pipe insulation was observed both installed and stored unused in mass quantities.

(X) Piles: Piles of debris, some containing suspected ACM, were observed.

( ) Stained Soil:

(X) Sheens: Some of the numerous puddles of unknown liquids observed on floors of the facility displayed sheens. Other puddles in poorly illuminated areas may also contain sheens.

( ) Stressed Vegetation:

( ) Landfill:

(X) Population in Vicinity: Approximately 600 workers are employed within the mill complex.

( ) Wells: **( ) Drinking:**

( ) Monitoring:

Physical Site Characteristics(Concluded)

(X) Other: At least five off-line electrical transformers of a type and age suspected of containing polychlorinated biphenyl (PCB) contaminated oil were observed within the mill complex.

According to the Phase 1 Environmental Site Assessment (ESA) Report prepared by Summit Environmental Consultants Inc. (SEC), more than 700 ballasts associated with used fluorescent lights, some of which are suspected of containing PCB-contaminated oil, are stored within the mill complex and show signs of oil leakage. According to Mr. Turgeon, these ballasts and fluorescent lights are still stored within the mill.

Physical Site Observations

The Bates Mill Site (the site) is the location of the former Bates Fabrics, Inc. textile manufacturing facility, at one time the largest employer within the State of Maine. Textile manufacturing operations have been conducted at the site since the 1850s. The site consists of 6.44 acres, the majority of which is occupied by 13 different buildings ranging from two to five stories in height. The total floor space of the mill complex is between 1.1 and 1.2 million square feet. Several parking areas and gravel driveways are also located on the site. The site is located within a highly urbanized area, with generally flat topography. According to the 1996 ESA report completed by SEC, the site is surrounded by canal waterways on all sides, with canal raceways located directly beneath portions of the mill complex. The canal waterways and raceways ultimately discharge to the Androscoggin River, which is located less than 0.25 miles to the west. Main Street is located just north of the site, Chestnut Street borders the site to the south, Canal Street is located to the east, and Lincoln Street to the west.

Field Sampling and Analysis

Matrix	Analytical Parameter	Field Instrumentation			
		CGI/O_2	RAD	PID	FID
Background Readings:		0%/20.8%	10-15uR/hr	1.4	1.0

(unless otherwise noted, no readings above background detected)

Air: (stairwell of No. 1 Storehouse) RAD: 25-30uR/hr

Tanks: N/A

Drums: (sample station D-8) PID: 350 units above background

Spillage: N/A

Field Quality Control Procedures

(X) SOP Followed ( ) Deviation From SOP

Comments:

Description of Sampling Conducted

A total of 14 drum samples (D-1 through D-14), four floor samples (F-1 through F-4), and two tank samples (T-1 and T-2) were collected. Samples were collected and laboratory analyzed for PCBs (D-1 through D-5, and D-7), asbestos (F-1 through F-3), pH (F-2, D-5, D-9, D-11 through D-14, T-1, and T-2), cyanide (F-2, D-5), flashpoint (D-5, D-6, D-8, and D-10), volatile organic compounds (VOCs) (D-5, D-6, D-8, D-10, and D-11), semivolatile organic compounds (SVOCs) (D-5, D-8, D-10), and metals (D-12).

Analyses

Analytical Parameter	Media	Laboratory
(X) VOC	( ) AIR	(X) NERL
(X) PCB	( ) WATER	( ) CLP
( ) PESTICIDE	( ) SOIL	( ) PRIVATE
(X) METALS	(X) SOURCE	( ) SAS
(X) CYANIDE	( ) SEDIMENT	( ) SOW
(X) SVOC		
( ) TOXICITY		
( ) DIOXIN		
(X) ASBESTOS		
(X) OTHER: Flashpoint, pH		

Analytical results:

One sample collected from an AST (tank car) had a pH of >13.

Laboratory analyses of the samples indicated the presence of the following substances: Naphthalene, ethylbenzene, isopropylbenzene, 1,3,5-trimethylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, p-isopropyltoluene, acetone, toluene, fluorene, pentachlorophenol, phenanthrene, 2-methylnaphthalene, and analine.

Receptors

Comments

( ) Drinking Water **( ) Private:** None.

( ) Municipal: None.

(X) Groundwater: The groundwater beneath the site is likely to be impacted by the mill complex based on the high groundwater table.

(X) Unrestricted: There may be unrestricted access to portions of the mill suspected of being contaminated during daytime hours. Site security is maintained during evening hours, but reportedly, incidents of trespassing are common.

(X) Population in Proximity: Approximately 600 workers are employed within the mill complex. In addition, the site is located within a populated urbanized area.

( ) Sensitive Ecosystem:

(X) Other: Portions of the mill complex are occupied by various active businesses which are staffed by employees and potentially frequented by customers. The site is surrounded by canal waterways, and canal raceways flow beneath portions of the mill, and discharge to the Androscoggin River, located less than 0.25 miles to the west.

Additional Procedures for Site Determination

( ) Biological Evaluation **( ) ATSDR**

To be determined by EPA task monitor.

Site Determination

Depending on further information, criteria that may be met by the site include 40 CFR 300.415 [b] [2], parts:

I. Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances, pollutants or contaminants.

iii. Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release.

v. Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released.

vi. Threat of fire or explosion.

vii. The availability of other appropriate federal or state response mechanisms to respond to the release.

viii. Other situations or factors that may pose threats to public health or welfare or the environment.

Report Generation		
Originator:	James F. Fein	**Date:** 10 April 1998
Affiliation:	Roy F. Weston, Inc. (START)	**Phone:** (781) 229-6430
TDD No.:	98-03-0002-A	**PCS No.:** 3435

II. Narrative Chronology

Narrative Chronology

The Bates Mill site (the site) is located at 65-177 Canal Street, in Lewiston, Androscoggin County, Maine (see Appendix A - Site Location Map). The site is the location of the former Bates Fabrics, Inc. textile manufacturing facility, at one time the largest employer in Maine. The facility consists of 13 different buildings ranging from two to five stories in height which comprise a total of 1.1 to 1.2 million square feet. The site is located in a highly urbanized area, with generally flat topography. According to a 1996 report documenting an investigation of the site completed by Summit Environmental Consultants, Inc. (SEC), the site is surrounded by canal waterways on all sides, with canal raceways located directly beneath portions of the mill complex (see Appendix B - Figure 2 - Site Diagram and Sample Location Map). The canal waterways and raceways discharge to the Androscoggin River, which is located less than 0.25 miles to the west.

Bates Fabrics, Inc. conducted textile manufacturing operations at the site from the 1850s until 1992, when the City of Lewiston acquired ownership of the property. Primary activities conducted included the weaving and dyeing of cotton and wool textiles. Several buildings within the complex are still actively used for textile operations. Other spaces within the mill complex have been occupied by various businesses; however, the majority of the mill complex is either empty or being revitalized for redevelopment.

On 10 and 11 March 1998, U. S. Environmental Protection Agency (EPA) and Roy F. Weston, Inc. Superfund Technical Assessment and Response Team (START) personnel traveled to the site for the purpose of conducting a Removal Program preliminary assessment/site investigation (PA/SI).

10 March 1998
Weather: Mostly Clear, approximately 45°F

Upon arrival at the site, START member James Fein and EPA On-Scene Coordinator (OSC) Paul Groulx met with Lewiston Mill Redevelopment Corporation (LMRC) Development Associate Allan Turgeon and City of Lewiston Grants Coordinator John Bott. Mr. Turgeon provided a brief description of the areas of concern within the mill complex which would be the focus of the PA/SI. Shortly thereafter, Mr. Bott departed the site for the day while START members Eric Ackerman, Jenifer Sullivan, and Patricia Coppolino calibrated air monitoring instruments and prepared equipment and supplies in advance of a site walk-through. EPA and START personnel wore appropriate levels of personal protective equipment in accordance with the site health and safety plan (HASP), which has been prepared as a separate document entitled *Removal Program Site Health and Safety Plan for the Bates Mill Site Preliminary Assessment/Site Investigation, Lewiston, Maine.*

The facility walk-through began at the south end of the site from Chestnut Street into a courtyard/driveway area just south of Mill No. 2. A small room attached to the north side of No. 2 Wing was inspected and found to contain two steel, closed-top, 55-gallon drums (see Appendix C - Table 1A - Drum and Electrical Transformer Inventory, Mill No. 2 - First Floor and No. 2

wing; and Figure 2A - Mill No. 2 and No. 2 Wing, First Floor). The group proceeded north through the first floor of Mill No. 2, the southern portion of which was essentially empty. It was noted that the floor buckled up in several areas and visibility in the central portion was impaired by a lack of adequate lighting caused by the position of a divider wall. The group proceeded to a room located off the west side of the first floor which, according to Mr. Turgeon, was the storage location of several off-line electrical transformers. The room was not entered, but START personnel were able to observe at least two off-line electrical transformers. START also observed a group of four 55-gallon closed-top steel drums along the divider wall (near the west wall) and one 40-gallon closed-top steel drum was located further east near the divider wall (see Appendix C - Table 1A and Figure 2A). The majority of the remaining northern section of the first floor was vacant.

A small room at the northeast portion of the first floor contained several pieces of abandoned machinery, a considerable amount of debris, a 55-gallon closed-top polyethylene drum, and a 30- to 40-gallon steel closed-top drum. In addition, a 55-gallon closed-top steel drum and a leaking 40-gallon closed-top steel drum were observed along the west outside wall of this room (see Appendix C - Table 1A and Figure 2A). Air monitoring of the leaking drum revealed an elevated photoionization detector (PID) reading of 350 units above background.

The group proceeded to the first floor of Mill No. 1, which was partially occupied by active businesses. The group proceeded through these businesses and to a 4-foot high elevated portion of the first floor, located along the east side of Mill No. 1. A large open-top concrete tank, which contained a limited amount of sediment, was observed to the east of the elevated area. The tank appeared dry and to have been out of use for an extended period. Immediately south of the concrete tank, a sedimentation basin partially filled with clear/light brown/rust-colored standing water was observed. Mr. Turgeon explained that this basin is connected to the canal waterway along the east side of the site. He stated that the basin had been previously used to settle sediment from the canal influent water prior to utilization for manufacturing purposes.

Upon entering the first floor of No. 1 Wing, Mr. Turgeon opened a floor access hatch to display an active canal raceway beneath the facility. Water was observed flowing through an open channel beneath the floor. The group noted six identical compressed gas cylinders, some with tags labeled carbon dioxide and dated 1973, along one wall. The No. 1 Wing area appeared to be an active work area.

The group proceeded to the first floor of the Mill No. 4/Bleachery which, an active work area. Approximately 23 55-gallon closed-top steel drums were observed adjacent to the south wall (see Appendix D - Table 1B - Drum Inventory, Mill No. 4/Bleachery, First Floor; and Figure 2B - Mill No. 4/Bleachery, First Floor). Two access hatches to two separate approximately 20,000-gallon capacity aboveground storage tanks (ASTs) located in the basement were noted and opened. The tanks contained a very limited amount of unknown material.

The group proceeded to the basement of the Mill No. 4/Bleachery which has an earthen floor and appeared to be an active work area related to activities performed on the first floor located directly above. START noted two previously described ASTs, an aboveground, open-topped concrete

tank and piping along the south wall (see Appendix E - Figure 2C - Mill No. 4/Bleachery, Basement Level).

The group proceeded to the basement level of the No. 1 Storehouse, and observed an approximately 10,000- gallon capacity AST in the southwest corner. A debris pile suspected to contain asbestos-containing material (ACM) was observed adjacent to the AST. Several drums were observed, grouped along the north and west walls, and scattered throughout the rest of the basement. Some of the drums were empty while others contained what appeared to be non-hazardous debris. Approximately 31 drums were observed to contain various materials, including suspected ACM debris (see Appendix F - Table 1C - Drum Inventory, No. 1 Storehouse, Basement Level; and Figure 2D - No. 1 Storehouse, Basement Level). Approximately 60 to 70 cardboard boxes containing unused pipe insulation suspected to be ACM were stored in the northeastern portion of the basement. Sections of the pipe insulation were also observed on the floor at various locations near the boxes. Two sealed plastic bags labeled "Asbestos, Class 9" were also observed in this area.

A separate room was also located at the southwest portion of the basement which contained a boiler and associated equipment. In addition, ceiling pipes were observed to be insulated with suspected ACM which was in a deteriorated condition. A pile of suspected ACM debris was noted along the west wall, as well as an approximately 10-foot by 15-foot by 5-foot tall concrete tank which was open-topped and approximately half-filled with white solid pellets. The group proceeded to the first floor of the No. 1 Storehouse using the south stairwell. Within the brick stairwell, slightly elevated radiation readings of 25 to 30 micro-rads per hour (uR/hr) were detected using the Micro-R Radiation meter.

The first floor level of the No. 1 Storehouse was observed to be an active work area. Numerous boxes of finished textile goods were observed in the center as well as along the west side of the room. Two drums were observed in the center of the room, positioned to collect liquids leaking from the ceiling, and possibly, the above floor levels. Approximately 26 55-gallon open- and closed-top steel drums were observed along the west wall. Eleven 55-gallon open- and closed-top drums and two approximately 30- to 40-gallon drums were observed in the northeast portion of the room, along the outside wall of a storage room. Several other 55-gallon drums were noted to be scattered throughout the room. These included a 30-gallon closed-top polyethylene drum with a tag marked Formic Acid, 85% (see Appendix G - Table 1D - Drum Inventory, No. 1 Storehouse, First Floor; and Figure 2E - No. 1 Storehouse, First Floor).

The second floor level of the No. 1 Storehouse was poorly illuminated and did not appear to be an active work area. Two off-line electrical transformers were observed on pallets at the southeast portion of the room, and a puddle of hardened liquid was observed next to one of the transformers. A third transformer was observed on a pallet along the south central portion of the room. Approximately 30 55-gallon drums and 11 30- to 40-gallon drums containing unknown materials were observed. Most of the drums were located at the southwest portion of the room, with a few other drums located at the southeast portion of the room (see Appendix H - Table 1E - Drum and Electrical Transformer Inventory, No. 1 Storehouse, Second Floor; and Figure 2F - No. 1

Storehouse, Second Floor). Miscellaneous abandoned machinery, machine parts, and general debris were scattered throughout the entire floor area. A poorly supported, leaking steam pipe, situated approximately 3 feet above the floor surface, was noted along the north end of the second floor.

The third floor of the No. 1 Storehouse was poorly illuminated and did not appear to be an active work area. A single off-line electrical transformer was observed on a pallet along the southeast portion of the floor. A puddle of oily liquid was observed on the floor next to the transformer. Approximately 15 55-gallon drums, three 40-gallon drums, one 30-gallon pail, and one 5-gallon pail were also observed throughout the third floor. Many of the drums were located along the outside wall of a separate room located at the southwest corner of the third floor. Other drums were noted within the separate room within the southwest corner of the floor, near the center, and in a cluster located at the northern portion of the room. (see Appendix I - Table 1F - Drum and Electrical Transformer Inventory, No. 1 Storehouse, Third Floor; and Figure 2G - No. 1 Storehouse, Third Floor). Discarded debris and other manufacturing related items were observed throughout the entire northern portion of the third floor.

The group proceeded to the first floor of the Mill No. 3. A large number of empty drums were observed in the northern portion of the floor. Mr. Turgeon explained that these empty drums were the property of Bates of Maine, the active textile manufacturing firm occupying a portion of the mill complex, and expected that they would be removed from the facility in the near future. These drums included approximately 70 55-gallon steel and polyethylene drums stored at the northeastern portion of the floor as well as approximately 25 55-gallon blue polyethylene drums and approximately 30 55-gallon fiber drums located at the western portion of the floor. The group continued to the center of the room to a basement access stairway location along the north side of the elevator shaft. The group entered the first floor of Mill No. 3 Annex, located adjacent to and immediately south of Mill No. 3. The group proceeded to the southwest corner of the room to a stairway which provided access to the basement. An approximately 5,000-to 6,000-gallon oil AST was present in the basement, but information regarding specific contents and remaining quantities could not be ascertained.

The group boarded the elevator and proceeded to the third floor level connecting Mill No. 1 and Mill No. 3. Upon exiting the elevator, a single, 55-gallon, yellow polyethylene drum was observed with the label "Dalko Kleen, DK-80, potentially flammable". Upon entering the second floor of Mill No. 2, a few active businesses were observed. The group proceeded to an abandoned second floor office suite at the south end of Mill No. 2. Mr. Turgeon identified this area as an office/support area for use by EPA and START personnel during this PA/SI.

Following the completion of the site walk-through and the establishment of the office/support area, START personnel prepared sampling equipment, donned Level B Personal Protective Equipment (PPE), and proceeded to collect the following samples: F-1 (F denotes floor sample) from the basement level of the No. 1 Storehouse; samples F-2 and F-3 from the basement of Mill No. 4/Bleachery; samples D-1 (D denotes drum sample) and D-2 from the first floor of the No. 1

Storehouse; samples D-3 and D-4 from the second floor of the No. 1 Storehouse; and samples F-4 and D-5 from the third floor of the No. 1 Storehouse. (See Appendix B - Figure 2 - Site Diagram and Sample Location Map). Samples were collected for polychlorinated biphenyls (PCBs)(D-1 through D-5); asbestos (F-1 through F-3); pH and cyanide (F-2 and D-5); and flashpoint, volatile organic compounds (VOC), and semivolatile organic compounds (SVOC) (D-5) analyses. Sampling activities were performed in accordance with the site sampling quality assurance/quality control (QA/QC) plan, which has been prepared as a separate document, entitled *Removal Program Site Quality Assurance/Quality Control Plan for the Bates Mill Preliminary Assessment/Site Investigation, Lewiston, Maine.* The descriptions of the samples collected are summarized in Table 1- Sample Descriptions. In addition to sample collection activities, START photodocumented the sample locations and site conditions (see Appendix J - Photodocumentation Log and Appendix K - Chain-of-Custody Record).

11 March 1998

Weather: Mostly Clear, approximately 20°F

Upon arrival at the site, OSC Groulx met with START members Fein, Ackerman, Sullivan and Coppolino to discuss the details of anticipated sample collection activities and inventory of drums and electrical transformers to be conducted within locations visited the previous day. After the conclusion of the meeting, START personnel calibrated air monitoring instruments and prepared sampling equipment for sample collection activities. START members Fein and Sullivan donned Level D modified PPE, and departed the office/support area with OSC Groulx. START members Ackerman and Coppolino donned Level B PPE and proceeded to collect the following samples: D-6 from the room attached to the first floor of No. 2 Wing; samples D-7 through D-11 from the first floor of Mill No. 2; samples D-12 through D-14 from the storage room located at the northeast corner of the first floor of the No. 1 Storehouse; and samples T-1 and T-2 from the inside of each of the two approximately 20,000-gallon ASTs located in the basement of Mill No. 4/Bleachery. Samples were collected for PCB (D-7), pH (D-9, D-11 through D-14, T-1 and T-2), flashpoint (D-6, D-8, and D-10),VOC (D-6, D-8, D-10, and D-11), SVOC (D-8 and D-10), and metals (D-12) analyses. Sampling activities were again performed in accordance with the previously described site sampling QA/QC plan. The descriptions of the samples collected are summarized in Table 2 - Sample Descriptions. In addition, START members Ackerman and Coppolino, dressed in Level B PPE, conducted an inventory of the storage room located at the northeast corner of the first floor of the No. 1 Storehouse (see Appendix G - Table 1D and Figure 2E and Appendix K - Chain-of-Custody Record).

12 March 1998

START member Fein relinquished the samples collected on 10 and 11 March 1998 to Senior Chemist William Andrade at the U.S. EPA New England Regional Laboratory (NERL) located in Lexington, Massachusetts for PCB, asbestos, pH, cyanide, flashpoint, VOC, SVOC, and metals analyses.

Analytical data can be found in the following appendices: Appendix L - Polychlorinated Biphenyl Analytical Data, Appendix M - Asbestos Analytical Data, Appendix N - pH Analytical Data, Appendix O - Cyanide Analytical Data, Appendix P - Flashpoint Analytical Data, Appendix Q - Volatile Organic Compound Analytical Data, Appendix R - Semivolatile Organic Compound Analytical Data, Appendix S - Metals Analytical Data.

TABLE 1

Sample Descriptions

Station No. and EPA Sample No.	Sample Station Location	Sample Type and Matrix	Grab or Composite	Sample Depth * (Inches)	Color	Sample Description	Comments
F-1 07761	No.1 Storehouse (Basement)	Solid Waste	Grab	NA	White	Dry Solid	Chunk
F-2 07762	Mill No. 4/ Bleachery (Basement)	Solid Waste	Grab	NA	White	Dry Solid	Crystalline Precipitate
F-3 07763	Mill No. 4/ Bleachery (Basement)	Solid Waste	Grab	NA	White	Dry Solid	Chunk
F-4 07764	No.1 Storehouse (Third Floor)	Liquid Waste	Grab	NA	Dark	Watery Oil	NA
D-1 07765	No.1 Storehouse (First Floor)	Liquid Waste	Grab	NA	Slightly Cloudy	Watery Liquid	Slightly Cloudy
D-2 07766	No.1 Storehouse (First Floor)	Liquid Waste	Grab	NA	Brown/ Clear	Two Phase Oil/Water	Phases, Layered
D-3 07770	No.1 Storehouse (Second Floor)	Liquid Waste	Grab	NA	Dark	Oil	NA
D-4 07767	No.1 Storehouse (Second Floor)	Liquid Waste	Grab	NA	Dark	Oil	NA
D-5 07768	No.1 Storehouse (Third Floor)	Liquid Waste	Grab	NA	Red	Watery Liquid	pH 7-8
D-6 07774	No. 2 Wing (First Floor) (Attached Room)	Liquid Waste	Grab	NA	Opaque	Viscous	Vial Cover Expanded
D-7 07775	Mill No. 2 (First Floor)	Liquid Waste	Grab	NA	Cloudy/ Yellow/ Light Brown	Three Phase	Two Oil Layers, One Water Layer
D-8 07776	Mill No. 2 (First Floor)	Liquid Waste	Grab	NA	Brown	Watery Liquid	NA
D-9 07777	Mill No. 2 (First Floor)	Solid Waste	Grab	NA	White	Powder	Large-Grained
D-10 07779	Mill No. 2 (First Floor)	Liquid Waste	Grab	NA	Clear/ Light Blue	Watery Liquid	Soapy

NA = Not applicable. F = floor sample.
D = drum sample. T = tank sample.

TABLE 1
(Concluded)
Sample Descriptions

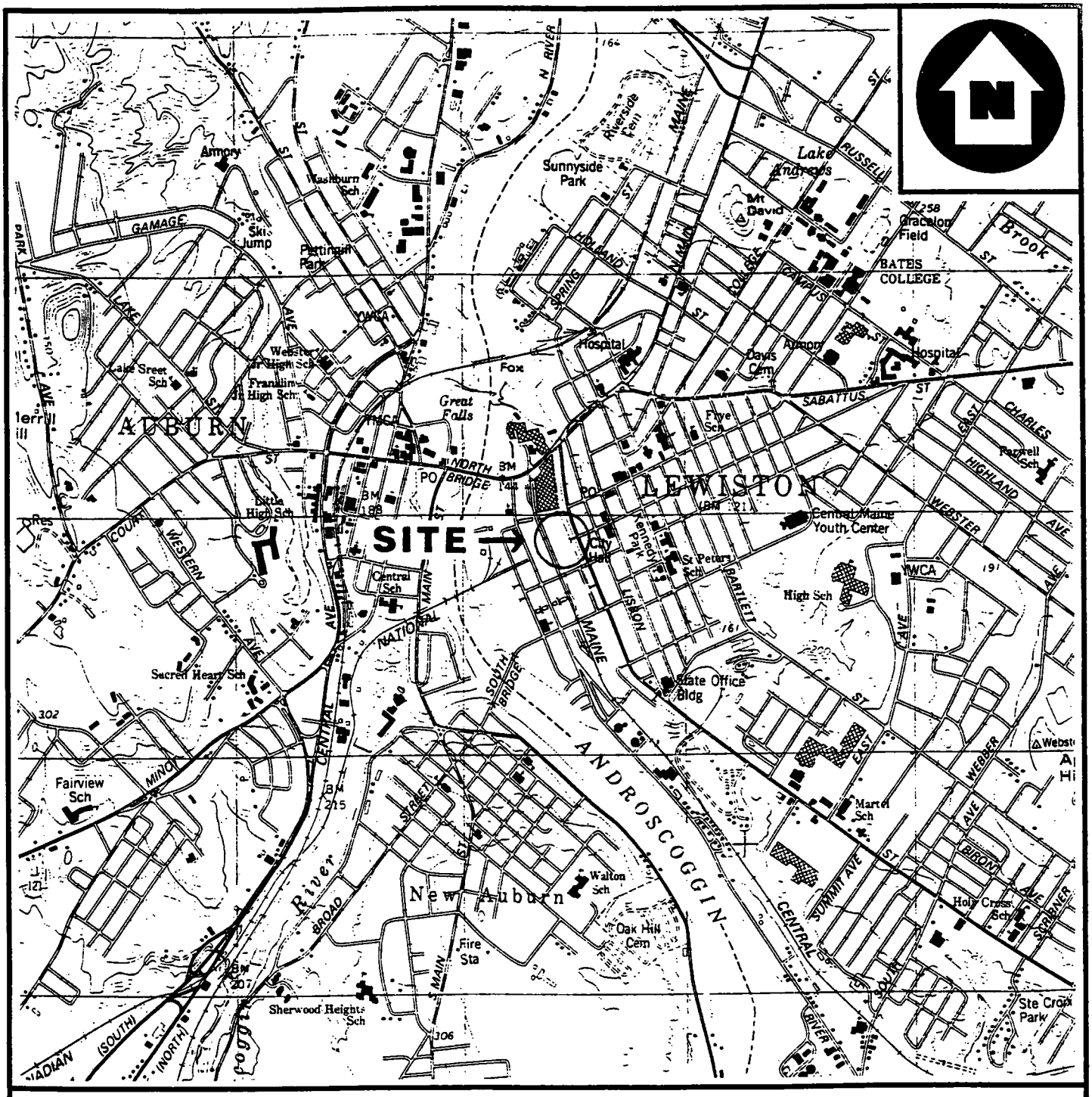
Station No. and EPA Sample No.	Sample Station Location	Sample Type and Matrix	Grab or Composite	Sample Depth * (Inches)	Color	Sample Description	Comments
D-11 07780	Mill No .2 (First Floor)	Liquid Waste	Grab	NA	Light Brown	Watery Liquid	Some Bubbles
D-12 07782	No.1 Storehouse (First Floor) (Attached Room)	Solid Waste	Grab	NA	Tan	Powder	Sand Grain-Sized
D-13 07783	No.1 Storehouse (First Floor) (Attached Room)	Solid Waste	Grab	NA	White	Powder	Granular
D-14 07784	No.1 Storehouse (First Floor) (Attached Room)	Liquid Waste	Grab	NA	Red	Watery Liquid	NA
T-1 07778	Mill No. 4/ Bleachery (Basement)	Solid Waste	Grab	NA	White	Dry Solid	Chunk
T-2 07781	Mill No. 4/ Bleachery (Basement)	Sludge Waste	Grab	NA	Cloudy	Viscous	Orange Film Surface
TB-01 07754	NA	Trip Blank	Grab	NA	Clear	NA	NA
TB-02 07755	NA	Trip Blank	Grab	NA	Clear	NA	NA
TB-03 07756	NA	Trip Blank	Grab	NA	Clear	NA	NA

NA = Not applicable.
D = drum sample.
F = floor sample.
T = tank sample.

III. Appendices

APPENDIX A

Figure 1 - Site Location Map



SCALE 1:24 000

1 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

MAINE

QUADRANGLE LOCATION

SITE LOCATION MAP

BATES MILL SITE

65-177 CANAL STREET

LEWISTON, MAINE

SOURCE: US GEOLOGICAL SURVEY/1975 LEWISTON, ME QUADRANGLE/7.5 MINUTE SERIES (TOPOGRAPHIC).

WESTON® MANAGERS DESIGNERS/CONSULTANTS

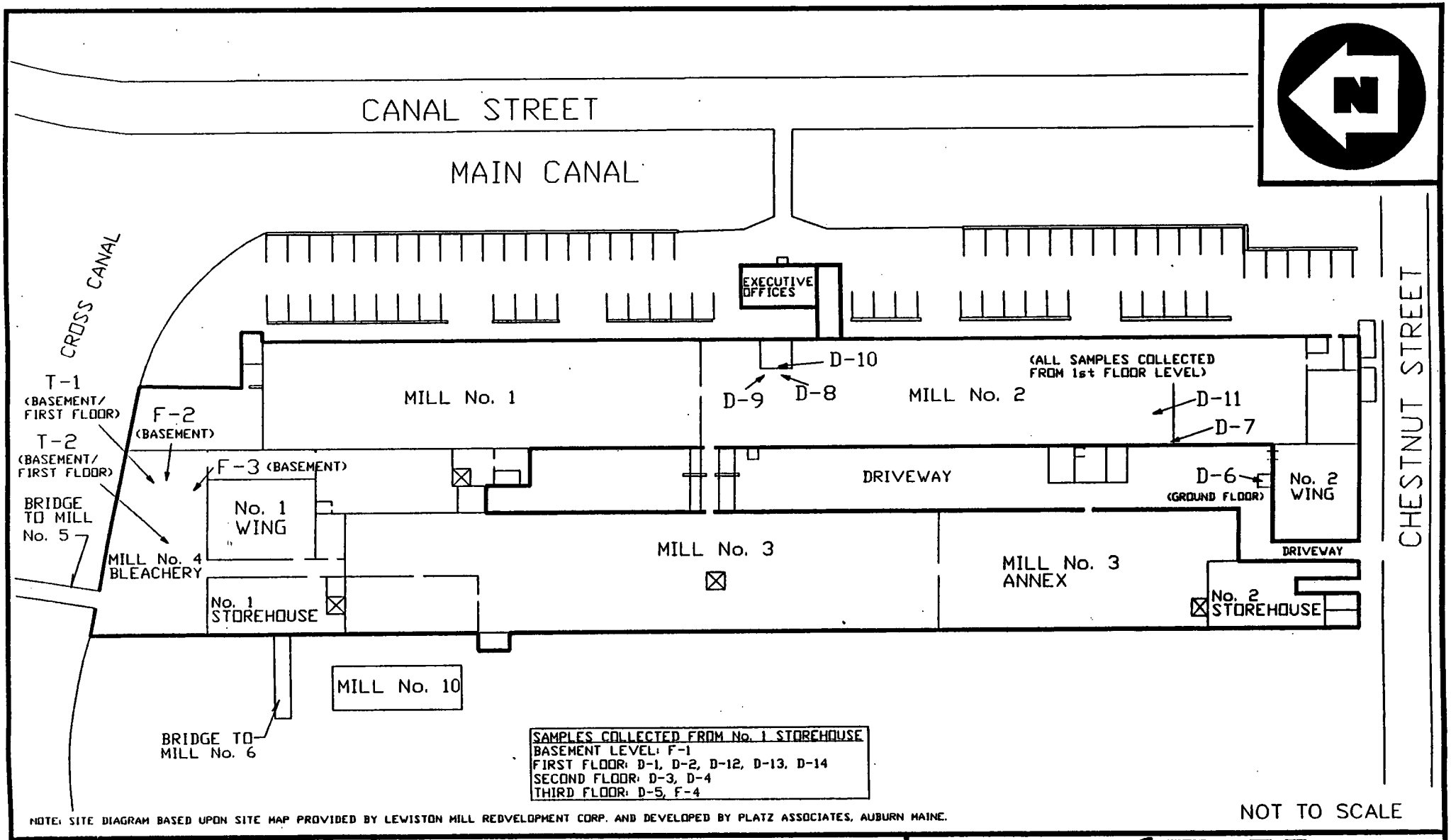
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	J. SULLIVAN	03/98

FILE NAME:	
R:\98030002\FIG1.DWG	FIGURE 1

APPENDIX B

Figure 2 - Site Diagram and Sample Location Map



LEGEND

- ⊠ ELEVATOR SHAFT
- ⫴ CROSSWALK
- F-1 DENOTES FLOOR SAMPLE
- D-2 DENOTES DRUM SAMPLE
- T-1 DENOTES TANK SAMPLE

SITE DIAGRAM AND SAMPLE LOCATION MAP

BATES MILL

65 - 177 CANAL STREET

LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS

REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

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98-03-0002	C. VOSS	4/8/98

FILE NAME: R:\98030002\SDSLM.DWG

FIGURE 2

APPENDIX C

Table 1A - Drum and Electrical Transformer Inventory, Mill No. 2 and No. 2 Wing, First Floor

and

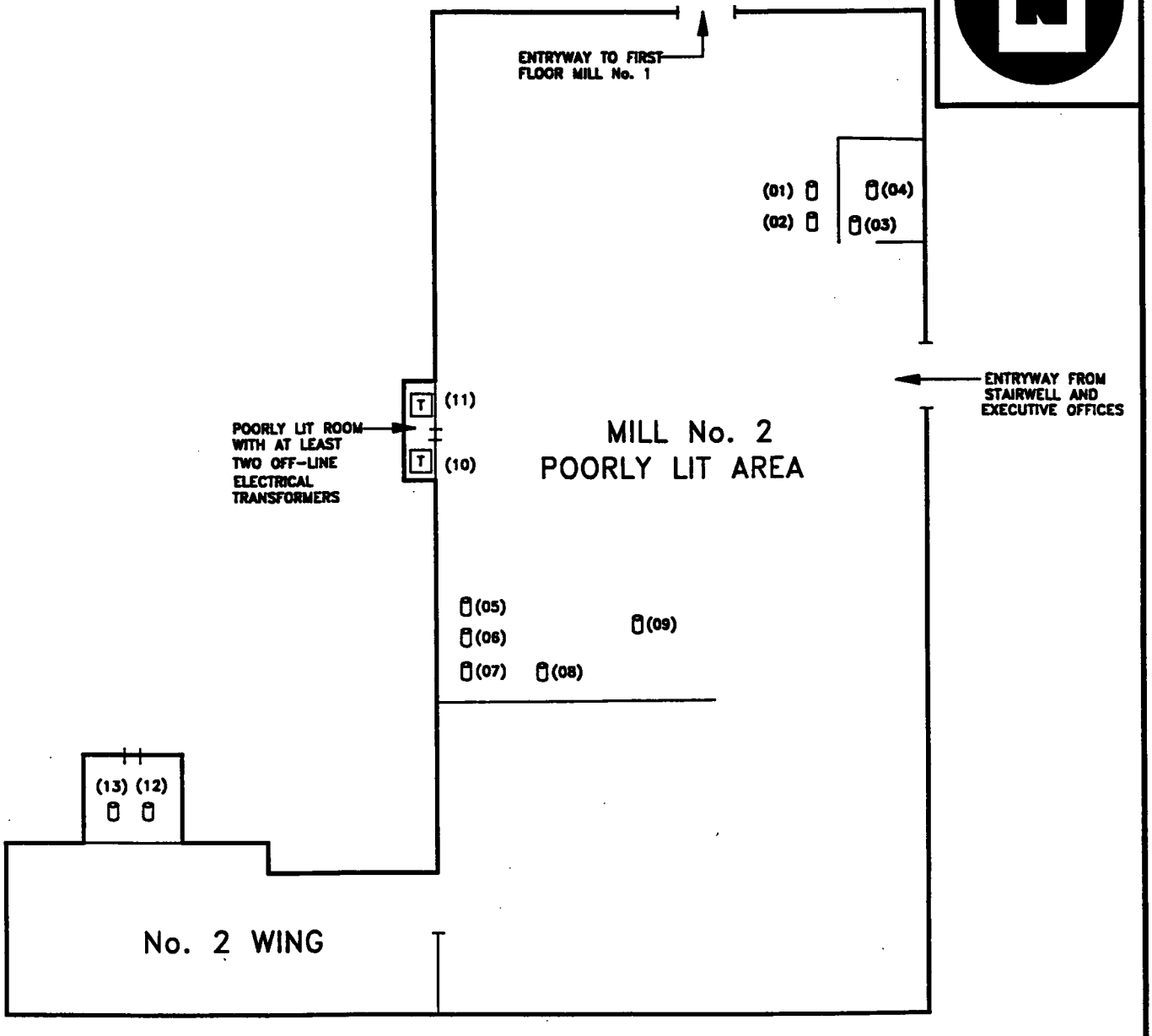
Figure 2A - Mill No. 2 and No. 2 Wing, First Floor

TABLE 1A

Drum and Electrical Transformer Inventory
Bates Mill Site - Lewiston, Maine
Mill No. 2 - First Floor and No. 2 Wing

Drum/ Transformer No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
1	Mill No. 2	First Floor	55	Steel	Green	Yes	Heavy duty alkaline cleaner BR-5512-S, corrosive	DuBois Chemicals Cincinnati, OH	Unknown contents
2	Mill No. 2	First Floor	40	Steel	Blue	Yes	Fenocil Non-selective weed killer	Chemsearch Corp. Sunnyvale, CA	Unknown contents
3	Mill No. 2	First Floor	55	Poly	Blue	Yes	B-R cleaner		Unknown contents
4	Mill No. 2	First Floor	30-40	Steel	Lt. Blue	Yes	Hytest Industries	Rutherford, NJ	Unknown contents
5	Mill No. 2	First Floor	55	Steel	Black	Yes	None		Suspect oil contents
6	Mill No. 2	First Floor	55	Steel	Black	Yes	None		Suspect oil contents
7	Mill No. 2	First Floor	55	Steel	Black	Yes	None		Suspect oil contents
8	Mill No. 2	First Floor	55	Steel	Black	Yes	None		Suspect oil contents
9	Mill No. 2	First Floor	40	Steel	Blue/white	Yes	Todd Chemical Co. New York, NY	Todd's 190 Ammoniated nitrate cleaner	Full unknown contents
10	Mill No. 2 (west room)	First Floor		Steel Transformer			Unknown		May have contents
11	Mill No. 2 (west room)	First Floor		Steel Transformer			Unknown		May have contents
12	No. 2 Wing (off Mill No. 2)	Ground level	55	Steel	Red/gray	Yes	Ethyl alcohol	25 lbs	Unknown contents
13	No. 2 Wing (off Mill No. 2)	Ground level	55	Steel	Black	Yes	None		May have contents

MILL No. 2 AND No. 2 WING, FIRST FLOOR



NOT TO SCALE

LEGEND

	DRUM
(01)	DRUM NUMBER
T	ELECTRICAL TRANSFORMER
———	WALL

Note: See Table 1A for details on drums.

SITE MAP

BATES MILL COMPLEX
65 – 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

FILE NAME: R:\98020003\1MILL2

FIGURE 2A

APPENDIX D

Table 1B - Drum Inventory, Mill No. 4/Bleachery, First Floor

and

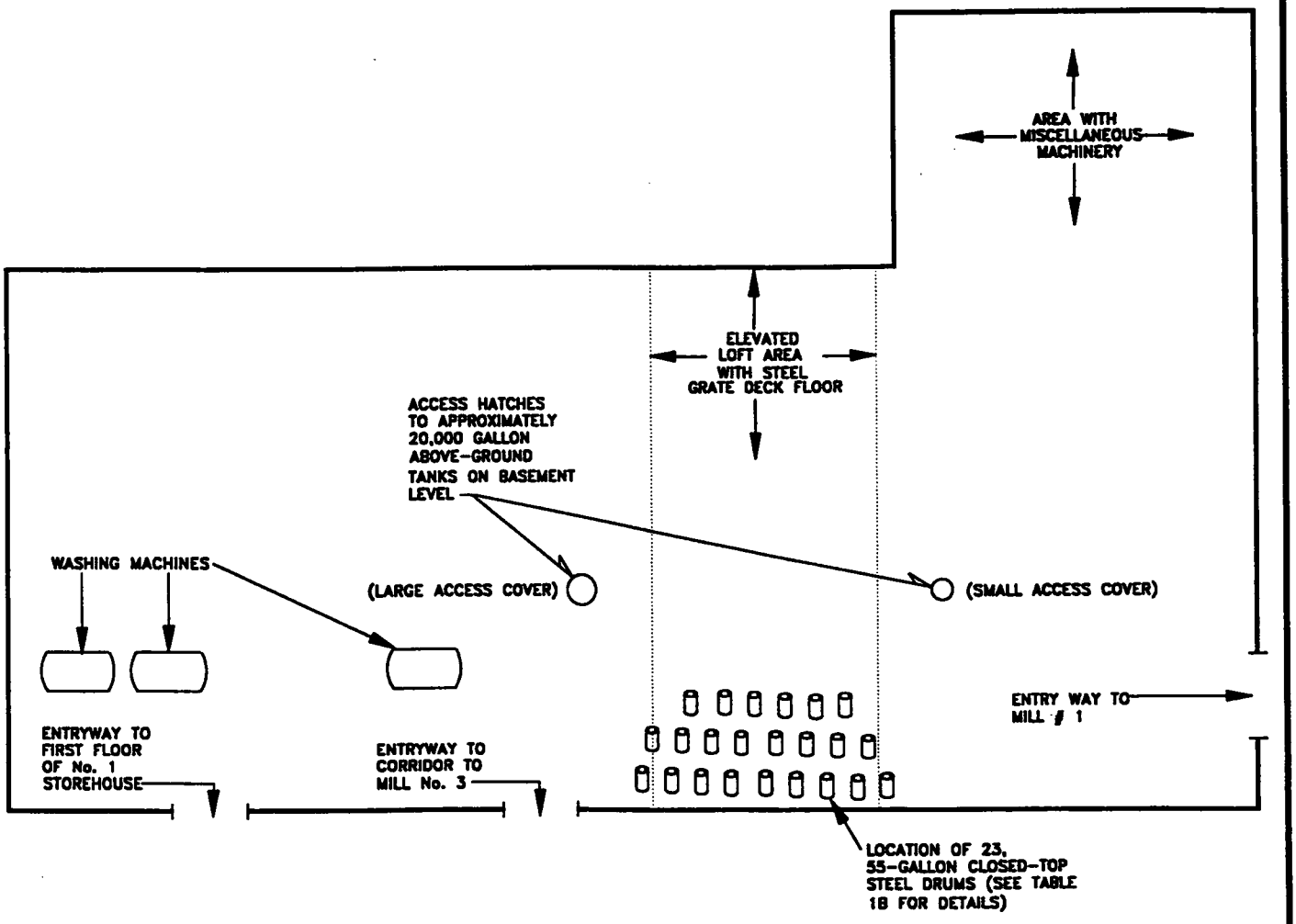
Figure 2B - Mill No. 4/Bleachery, First Floor

TABLE 1B

Drum Inventory
Bates Mill Site - Lewiston, Maine
Mill No. 4 / Bleachery - First Floor

Drum No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
--	Mill No. 4	Bleachery	55	Steel	White	Yes	Germicide	Rochester Germicide Co.	Unknown
--	Mill No. 4	Bleachery	55	Steel	White	Yes	Germicide	Rochester Germicide Co.	Unknown
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye
--	Mill No. 4	Bleachery	55	Steel	Black	Yes	None		Appears to be dye

MILL No. 4 / BLEACHERY, FIRST FLOOR



NOT TO SCALE

LEGEND

	DRUM
(01)	DRUM NUMBER

Note: See Table 1B for details on drums.

SITE MAP

BATES MILL COMPLEX
65 – 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

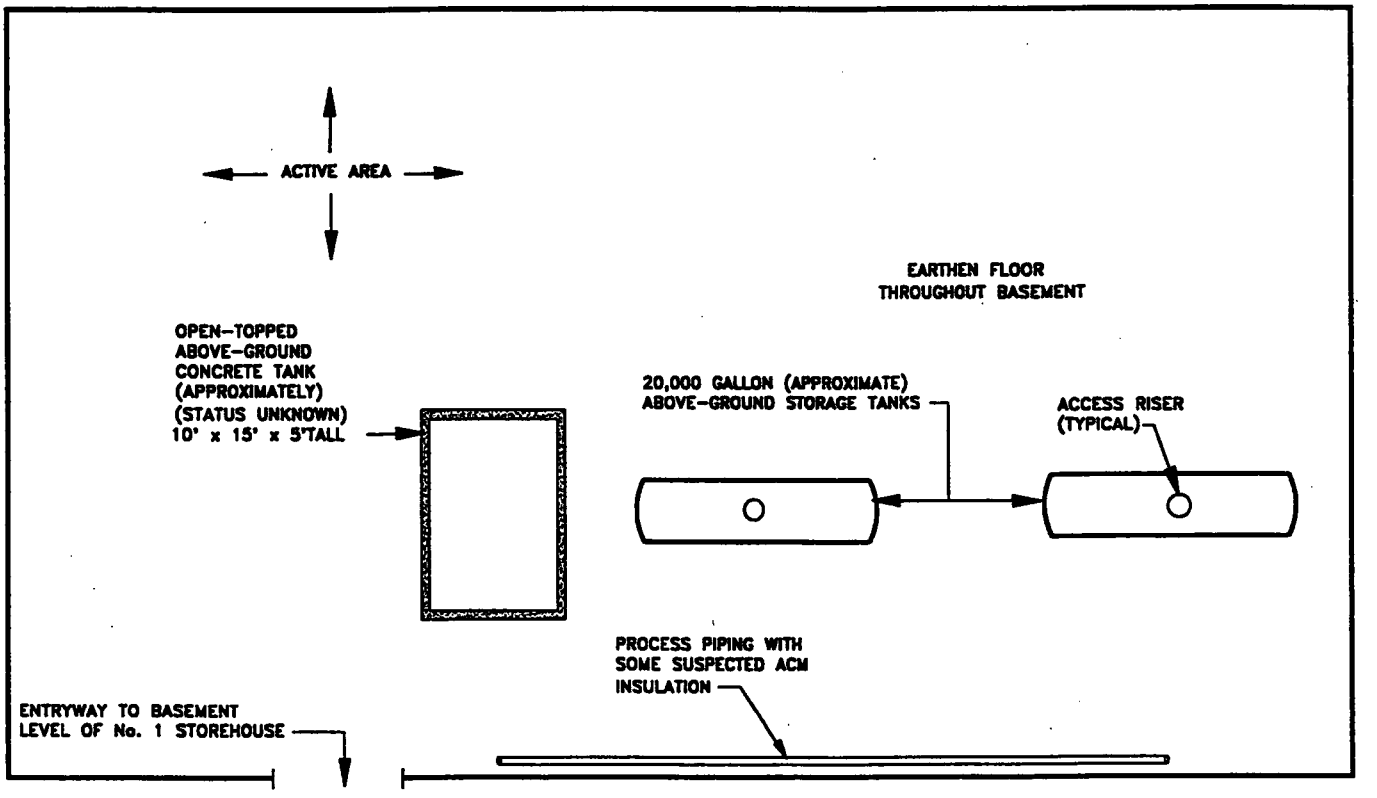
FILE NAME: R:\98030002\1MILL4

FIGURE 2B

APPENDIX E

Figure 2C - Mill No. 4/Bleachery, Basement Level

MILL No. 4 / BLEACHERY, BASEMENT LEVEL



NOT TO SCALE

LEGEND

ACM ASBESTOS CONTAMINATED MATERIAL

SITE MAP

BATES MILL COMPLEX
65 – 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

FILE NAME: r:\98030002\B4BLEACH

FIGURE 2C

APPENDIX F

Table 1C - Drum Inventory, No. 1 Storehouse, Basement Level

and

Figure 2D - No. 1 Storehouse, Basement Level

TABLE 1C

Drum Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - Basement Level

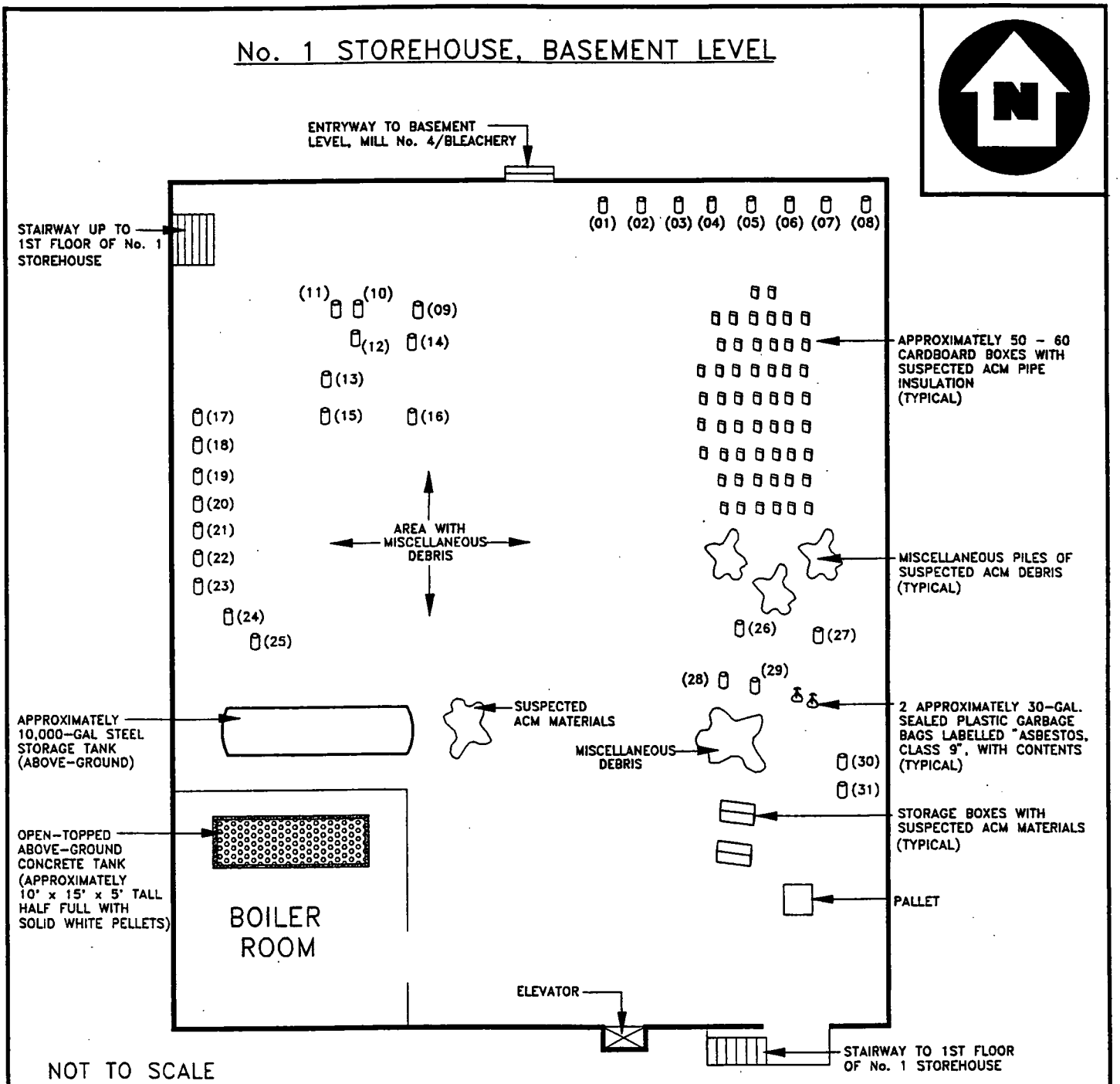
Drum No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
1	No. 1 Storehouse	Basement	55	Fiber	Tan	Yes	USOCSET-AM-1 SUS Chemical Co., Inc. Box 10027 Rock Hill, SC 29731 (803) 366-9411 H-2, F-0, R-0 On lid: 20-20-500	SUS Chemical Co., Inc. Box 4228 - Dexter Road Providence, RI 02914 (401) 434-3000 Contains Formaldehyde	1/2 full white powder
2	No. 1 Storehouse	Basement	55	Fiber	Tan	Yes	USOCSET-AM-1 SUS Chemical Co., Inc. Box 10027 Rock Hill, SC 29731 (803) 366-9411 H-2, F-0, R-0 On lid: 20-20-500	SUS Chemical Co., Inc. Box 4228 - Dexter Road Providence, RI 02914 (401) 434-3000 Contains Formaldehyde	1/3 full white powder
3	No. 1 Storehouse	Basement	30-40	Steel	Rust	No	None		Full white powder
4	No. 1 Storehouse	Basement	30-40	Fiber	Tan	Yes	Flake sodium nitrate usp 400 lbs net	Solvay Process Division Allied Chemical 40 Rector Street New York, NY	Full unknown solid
5	No. 1 Storehouse	Basement	30-40	Steel	Blue/rust	No	None		1/2 full white powder
6	No. 1 Storehouse	Basement	30-40	Fiber	Dark blue/ black	Yes	Lykopon, net wt: 250 Rohm & Haas Co. Philadelphia, PA Concentrated sodium hydrosulfite	May ignite if allowed to become damp. Keep container tightly closed. Use only dry, clean utensils in handling. Store in cool, dry place.	1/2 full white powder
7	No. 1 Storehouse	Basement	30-40	Fiber	Dark blue/ black	Yes	Lykopon, net wt: 250 Rohm & Haas Co. Philadelphia, PA Concentrated sodium hydrosulfite	May ignite if allowed to become damp. Keep container tightly closed. Use only dry, clean utensils in handling. Store in cool, dry place.	1/2 full white powder
8	No. 1 Storehouse	Basement	>55	Fiber	Tan	Yes	USOCSET-AM-1 SUS Chemical Co., Inc. Box 10027 Rock Hill, SC 29731 (803) 366-9411 H-2, F-0, R-0 On lid: 20-20-500	SUS Chemical Co., Inc. Box 4228 - Dexter Road Providence, RI 02914 (401) 434-3000 Contains Formaldehyde	Full debris including potential ACM
9	No. 1 Storehouse	Basement	approx. 55 (short/wide)	Fiber	Dark blue	No	Procion Blue-MCR Product Code 54602 110 lbs Warning: causes eye/resp. irritation	ICI Americas, Inc. Wilmington, DE 19897 (302) 575-3000	Empty except residual solid material

TABLE 1C
(continued)

Drum Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - Basement Level (cont;)

Drum No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
10	No. 1 Storehouse	Basement	30-40	Fiber	Black	Yes	None		Full of debris/potential ACM
11	No. 1 Storehouse	Basement	30-40	Fiber	Black	Yes	None		Full of debris/potential ACM
12	No. 1 Storehouse	Basement	55	Fiber	Tan	Yes	USCOSET-AM-1		Full of debris/potential ACM
13	No. 1 Storehouse	Basement	55	Steel	Blue	Yes	None		Full unknown solid
14	No. 1 Storehouse	Basement	55	Fiber	Tan	No	None		Four inches stones/debris
15	No. 1 Storehouse	Basement	55 (side bung)	Steel	Black	No	None		Six inches solids/debris
16	No. 1 Storehouse	Basement	55	Steel	Blue	No	None		Six inches solids/debris
17	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	None		Possibly empty
18	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	Caryclad - 54 gal.		Full unknown
19	No. 1 Storehouse	Basement (ww)	40	Steel	Black	Yes	Caryclad - 40 gal.		Full unknown
20	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	SSA-70 primer		Full unknown
21	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	None		Full unknown
22	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	None		Full unknown
23	No. 1 Storehouse	Basement (ww)	55	Steel	Black	Yes	None		Full unknown
24	No. 1 Storehouse	Basement (ww)	55	Steel	Black/blue	Yes	Stonhard Co. Philadelphia, PA Stontop	Bates Mfg. Co. Lewiston, ME	Full unknown
25	No. 1 Storehouse	Basement (ww)	55	Fiber	Blue	Yes	CA-S-306-979 Fixapret CP40 523-23-500		May have contents
26	No. 1 Storehouse	Basement (se)	55	Steel	Black	--	None		Full unknown
27	No. 1 Storehouse	Basement (se)	55	Steel	Black	--	None		Full unknown
28	No. 1 Storehouse	Basement (se)	55	Steel	Black	Yes	None		Full unknown
29	No. 1 Storehouse	Basement (se)	55	Steel	Black	Yes	None		Full unknown
30	No. 1 Storehouse	Basement (se)	55	Fiber	Red	No	None		Contains debris/ potential ACM
31	No. 1 Storehouse	Basement (se)	55	Fiber	Red	--	Reactex 711 Ivax textile products group	FP >200F H-2, F-1, R-0	May have contents

No. 1 STOREHOUSE, BASEMENT LEVEL



NOT TO SCALE

LEGEND

- DRUM
- (01) DRUM NUMBER
- PILE
- GARBAGE BAGS
- CARDBOARD BOX
- STORAGE BOX
- ACM ASBESTOS CONTAMINATED MATERIAL

Note: See Table 1C for details on drums.

SITE MAP

BATES MILL COMPLEX
65 - 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

FILE NAME: R:\98030002\BSTORE1.DWG

FIGURE 2D

APPENDIX G

Table 1D - Drum Inventory, No. 1 Storehouse, First Floor

and

Figure 2E - No. 1 Storehouse, First Floor

TABLE 1D

Drum Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - First Floor

Drum No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings	Contents
1	No. 1 Storehouse	First floor	55	Fiber	Red	--	Reactex 711	
2	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
3	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
4	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
5	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
6	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
7	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
8	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
9	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
10	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
11	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
12	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
13	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
14	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
15	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
16	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
17	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
18	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
19	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
20	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
21	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
22	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
23	No. 1 Storehouse	First floor	40	Steel		Yes		May contain petroleum product
24	No. 1 Storehouse	First floor	40	Steel		Yes		May contain petroleum product
25	No. 1 Storehouse	First floor	40	Steel		Yes		May contain petroleum product
26	No. 1 Storehouse	First floor	40	Steel		Yes		May contain petroleum product
27	No. 1 Storehouse	First floor	55	Fiber		No		May contain rainwater
28	No. 1 Storehouse	First floor	55	Poly		No		May contain rainwater
29	No. 1 Storehouse	First floor	55	Steel		No		May contain rainwater
30	No. 1 Storehouse	First floor	55	Steel		No		May contain rainwater
31	No. 1 Storehouse	First floor	30-40	Poly		Yes	Formic Acid, 85%	May have contents
32	No. 1 Storehouse	First floor	30-40	Steel		--	None	Grease contents possible
33	No. 1 Storehouse	First floor	30-40	Steel		--	None	Grease contents possible
34	No. 1 Storehouse	First floor	55	Fiber		--	None	May have contents
35	No. 1 Storehouse	First floor	55	Fiber		No	Reactex 711	May have contents
36	No. 1 Storehouse	First floor	55	Fiber		No	Reactex 711	May have contents
37	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
38	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
39	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
40	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
41	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
42	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
43	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
44	No. 1 Storehouse	First floor	55	Steel		Yes		May contain petroleum product
45	No. 1 Storehouse	First floor	55	Poly		No	None	Contents

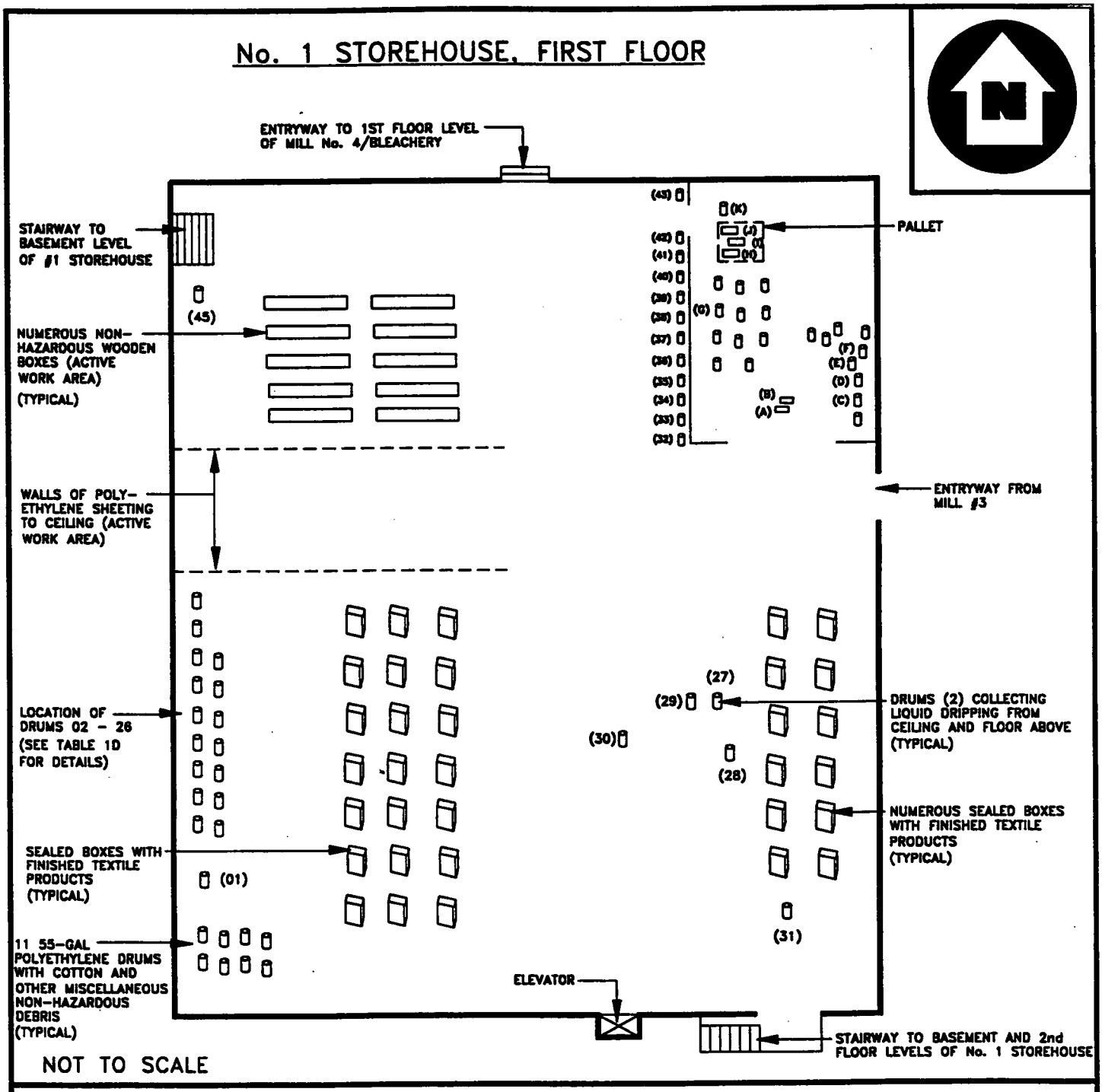
TABLE 1D
(continued)

Drum Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - First Floor

Drum/ Container No.	Building	Floor/Section	Size*	Type	Color	Lid	Labels & Markings	Contents
A	No. 1 Storehouse	First floor (sr)	75 pounds	Fiber Bag	--	--	TAMOL	Dry solid powder
B	No. 1 Storehouse	First floor (sr)	75 pounds	Fiber Bag	--	--	TAMOL	Dry solid powder
C	No. 1 Storehouse	First floor (sr)	30	Plastic	--	--	Ammonium Sulfate	White powder
D	No. 1 Storehouse	First floor (sr)	30	Steel	--	--	Tamol SN 100 #	Undetermined
E	No. 1 Storehouse	First floor (sr)	30	Plastic	--	--	Ammonium Sulfate	White Powder
F	No. 1 Storehouse	First floor (sr)	10	Poly	--	--	SANDOPAN CBA LIQUID, Sandoz Chemical Co.	Undetermined
G	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	Hazardous Irritant	Undetermined
H	No. 1 Storehouse	First floor (sr)	75 pounds	Fiber Bag	--	--	Ammonium Bifluoride	Undetermined
I	No. 1 Storehouse	First floor (sr)	75 pounds	Fiber Bag	--	--	Ammonium Bifluoride	Undetermined
J	No. 1 Storehouse	First floor (sr)	75 pounds	Fiber Bag	--	--	Ammonium Bifluoride	Undetermined
K	No. 1 Storehouse	First floor (sr)	55	Poly	--	--	Waste	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	WILCOSTAT, Willard Chemical Company	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	PHOPLEX K-3	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	SANDOZOL KB Colors and Chemicals	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	WILCONAP, Willard Chemical Company	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	WILCONAP 100 lbs., Willard Chemical Company	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Steel	--	--	WILCOSTAT - Willard Chemical Co., Nashua, NH	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	Royce DISCALITE	Undetermined
--	No. 1 Storehouse	First floor (sr)	55	Fiber	--	--	Royce DISCALITE	Undetermined
--	No. 1 Storehouse	First floor (sr)	40	Fiber	--	--	Sodium Hexametasulfate	Undetermined
--	No. 1 Storehouse	First floor (sr)	40	Fiber	--	--	TINGELL GL 150 lbs.	Undetermined
--	No. 1 Storehouse	First floor (sr)	30	Fiber	--	--	Fabric Treatment	Undetermined
--	No. 1 Storehouse	First floor (sr)	30	Poly	--	--	ALBATEX, Ciba-Geigy Corp.	Undetermined
--	No. 1 Storehouse	First floor (sr)	40	Fiber	--	--	WILCONAP 100 lbs., Willard Chemical Company	Undetermined
--	No. 1 Storehouse	First floor (sr)	10	Fiber	--	--	INTRALIN R SOLTHA LOT 50 #, Crompton & Knowles	Undetermined
--	No. 1 Storehouse	First floor (sr)	5	Poly	--	--	PRECHEM 90	Undetermined

* gallons, unless otherwise indicated.
sr = storage room

No. 1 STOREHOUSE, FIRST FLOOR



NOT TO SCALE

LEGEND

	DRUM		STORAGE BOX
(01)	DRUM NUMBER		FIBER BAG

NOTE: SEE TABLE 1D FOR DETAILS ON DRUMS AND FIBER BAGS

SITE MAP

BATES MILL COMPLEX
65 - 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

FILE NAME: R:\98030002\1STORE1.DWG

FIGURE 2E

APPENDIX H

Table 1E - Drum and Electrical Transformer Inventory, No. 1 Storehouse, Second Floor

and

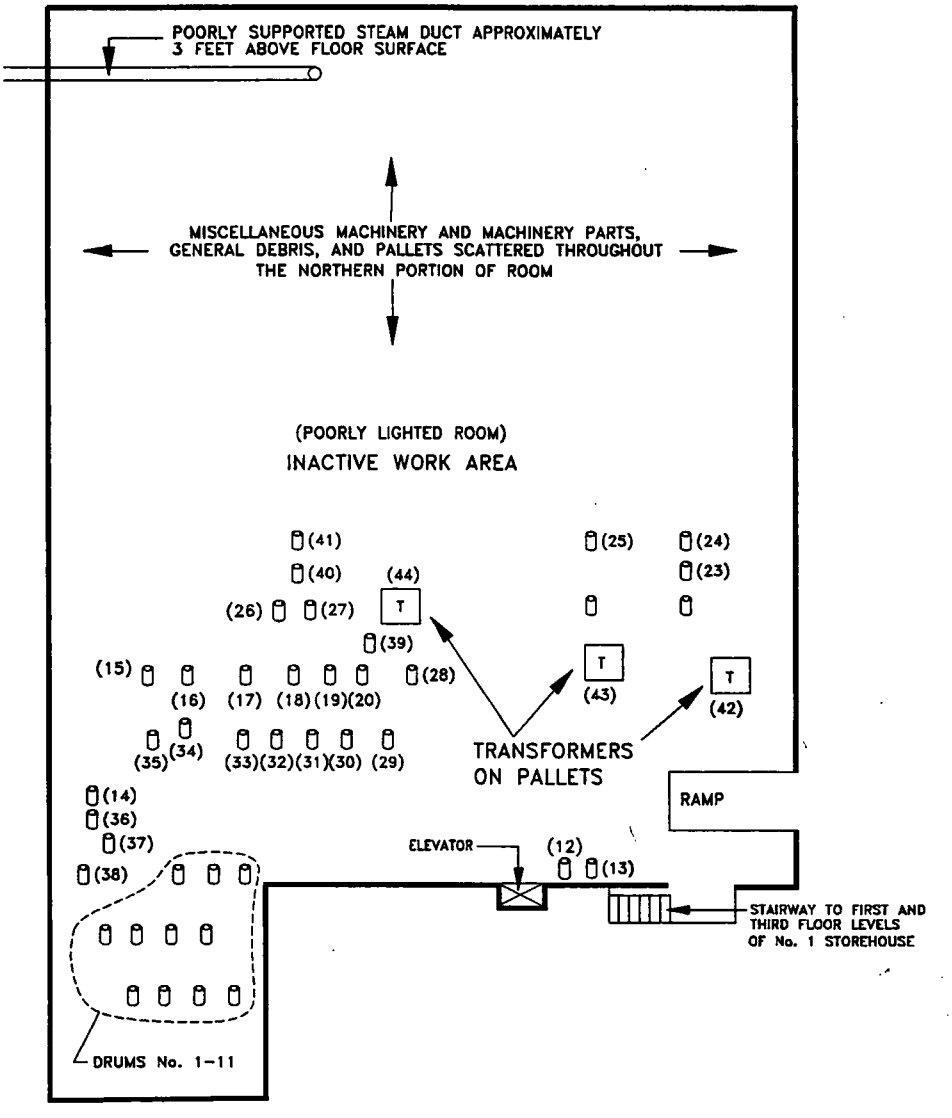
Figure 2F - No. 1 Storehouse, Second Floor

TABLE 1E

Drum and Electrical Transformer Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - Second Floor

Drum/ Transformer No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
1	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
2	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
3	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
4	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
5	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
6	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
7	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
8	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
9	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
10	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
11	No. 1 Storehouse	Second Floor	30-40	Steel	Grn/White	No	Texaco		Some contents-appears to be grease
12	No. 1 Storehouse	Second Floor	55	Steel	--	Yes	Transformer Oil	Stazon M	May be full
13	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
14	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
15	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
16	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
17	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
18	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
19	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
20	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
21	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
22	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
23	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
24	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
25	No. 1 Storehouse	Second Floor	55	Steel	Orange/blk	Yes	Motor Oil indications		May be full
26	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	Spindura		May be type of oil
27	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	Stazon M		May be type of oil
28	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
29	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
30	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
31	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
32	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
33	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
34	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
35	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
36	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
37	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
38	No. 1 Storehouse	Second Floor	55	Steel	Blue/grn	Yes	None		May be type of oil
39	No. 1 Storehouse	Second Floor	55	Steel	White	Yes	Mobilplex EP24		May be type of oil
40	No. 1 Storehouse	Second Floor	55	Fiber	Tan	Yes	None		Debris
41	No. 1 Storehouse	Second Floor	55	Fiber	Tan	Yes	Milease T		Debris
42	No. 1 Storehouse	Second Floor		Steel Transformer			Make: EST Philadelphia Transformer Co. Rebuilt by Westinghouse	230 volts KVA: 15 Cycles: 60	May have contents
43	No. 1 Storehouse	Second Floor		Steel Transformer			Type: 8 Westinghouse, Sharon, PA S/N: 1664165	Cycles: 60 Single phase additive polarity 9.75 gals oil	May have contents
44	No. 1 Storehouse	Second Floor		Steel Transformer			"S" transformer S/N: 5402227	600 volts Single phase additive polarity 695 lbs total weight	May have contents

No. 1 STOREHOUSE, SECOND FLOOR



NOT TO SCALE

LEGEND

	DRUM
(01)	DRUM NUMBER
T	ELECTRICAL TRANSFORMER

Note: See Table 1E for details on drums and electrical transformers.

SITE MAP

BATES MILL COMPLEX
65 - 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	P. PANZA	4\2\98

FILE NAME: R:\98030002\2STORE1.DWG

FIGURE 2F

APPENDIX I

Table 1F - Drum and Electrical Transformer Inventory, No. 1 Storehouse, Third Floor

and

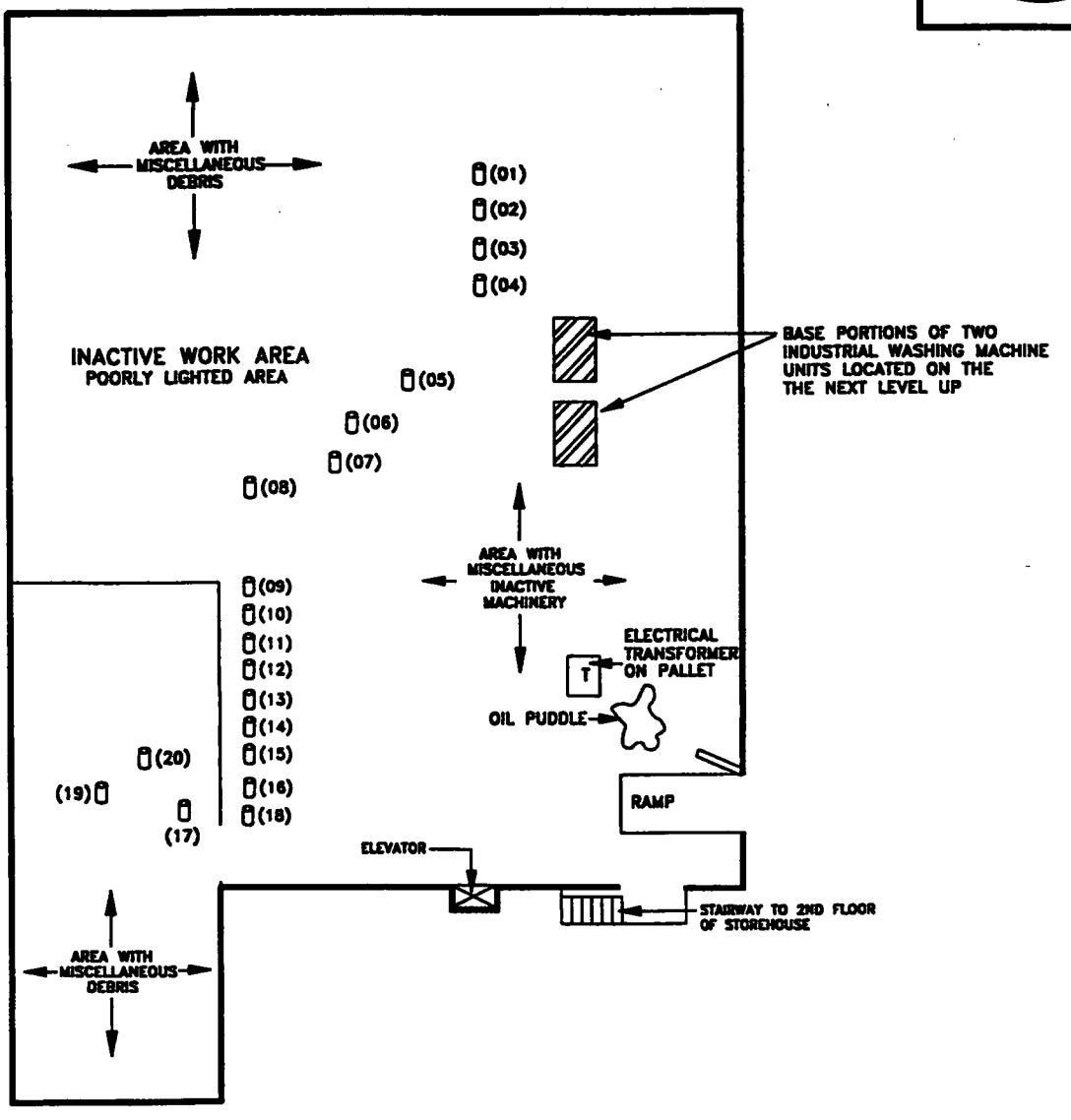
Figure 2G - No. 1 Storehouse, Third Floor

TABLE 1F

Drum and Electrical Transformer Inventory
Bates Mill Site - Lewiston, Maine
No. 1 Storehouse - Third Floor

Drum No.	Building	Floor/Section	Size (gal)	Type	Color	Lid	Labels & Markings		Contents
1	No. 1 Storehouse	Third Floor	55	Fiber	Tan	Yes	Inmont F fixative		Full unknown contents
2	No. 1 Storehouse	Third Floor	55	Steel	Blue	Yes	Vivitone, Inc., Paterson, NJ	Antifoam - wt: 390	Full unknown contents
3	No. 1 Storehouse	Third Floor	40	Fiber	--	Yes	None		Full unknown contents
4	No. 1 Storehouse	Third Floor	55	Fiber	--	Yes	Resin for zeolite water softener - valuable/nonhazardous		Full unknown contents
5	No. 1 Storehouse	Third Floor	55	--	Black	Yes	None		Full unknown contents
6	No. 1 Storehouse	Third Floor	55	Fiber	Lt. Blue	Yes	Spectrachem, H-3, F-2, R-0	Water phase pigment color	Full unknown contents
7	No. 1 Storehouse	Third Floor	40	Fiber	Blue	Yes	Vivitone, Inc.	Scarlet dye	Unknown contents
8	No. 1 Storehouse	Third Floor	55	Steel	Green	Yes	National 3-2550	Food packaging adhesive	Full unknown contents
9	No. 1 Storehouse	Third Floor	55	Steel	Black	Yes	Dye		Unknown contents
10	No. 1 Storehouse	Third Floor	55	Steel	Black	Yes	Dye		Unknown contents
11	No. 1 Storehouse	Third Floor	55	Poly	Blue	Yes	None		1/8 full unknown contents
12	No. 1 Storehouse	Third Floor	55	Fiber	--	Yes	None		May have contents
13	No. 1 Storehouse	Third Floor	55	Fiber	--	Yes	None		May have contents
14	No. 1 Storehouse	Third Floor	55	Fiber	--	Yes	None		May have contents
15	No. 1 Storehouse	Third Floor	55	Fiber	--	Yes	None		May have contents
16	No. 1 Storehouse	Third Floor	55	Fiber	Red	Yes	Reactex 711		May have contents
17	No. 1 Storehouse	Third Floor	55	Fiber	Blue	Yes	Vivitone Yellow Dye		May have contents
18	No. 1 Storehouse	Third Floor	30	Plastic pail	Green	Yes	Ammonium bifluoride		May have contents
19	No. 1 Storehouse	Third Floor	40	Poly	Blue	Yes	B-A Solution		Liquid contents
20	No. 1 Storehouse	Third Floor	5	Poly	White	Yes	B-A Solution		Unknown contents
21	No. 1 Storehouse	Third Floor		Steel Transformer			Type: H General Electric Westinghouse	600 volts 60 cycles Additive polarity	

No. 1 STOREHOUSE, THIRD FLOOR



NOT TO SCALE

LEGEND

DRUM		(01)	DRUM NUMBER	T	ELECTRICAL TRANSFORMER

NOTE: SEE TABLE 1F FOR DETAILS ON DRUMS AND ELECTRICAL TRANSFORMER

SITE MAP

BATES MILL COMPLEX
65 – 177 CANAL STREET
LEWISTON, MAINE

WESTON® MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-03-0002	C. VOSS	3\24\98

FILE NAME: R:\98030002\3STORE1.DWG

FIGURE 2G

APPENDIX J

Photodocumentation Log

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of sample station F-3. Suspected asbestos-containing material (ACM) on gearshaft, along south wall of basement level of Mill No. 4/Bleachery.

FRAME NUMBER: 00 **DATE:** 10 March 1998 **TIME:** 1500 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU53108

SCENE: View of sample station F-2. Crystalline white precipitate on underside of "railroad" tank car, easternmost tank car at the basement level of Mill No. 4/Bleachery.

FRAME NUMBER: 01 **DATE:** 10 March 1998 **TIME:** 1510 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of sample station F-1. White, chunky solid, suspected ACM material on basement floor of No. 1 Storehouse.

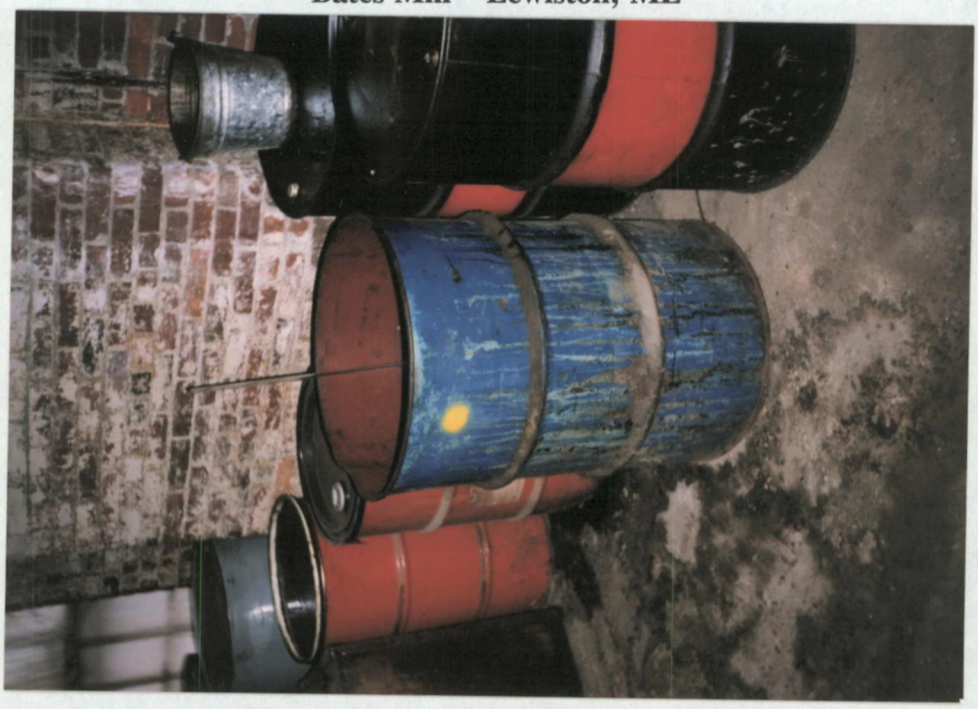
FRAME NUMBER: 02 **DATE:** 10 March 1998 **TIME:** 1520 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of sample station D-1. Red fiber drum, approximately 55-gallons, used for catching liquids dripping from ceiling and floor(s) above. Located at first floor of No. 1 Storehouse (center of room).

FRAME NUMBER: 03 **DATE:** 10 March 1998 **TIME:** 1530 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP



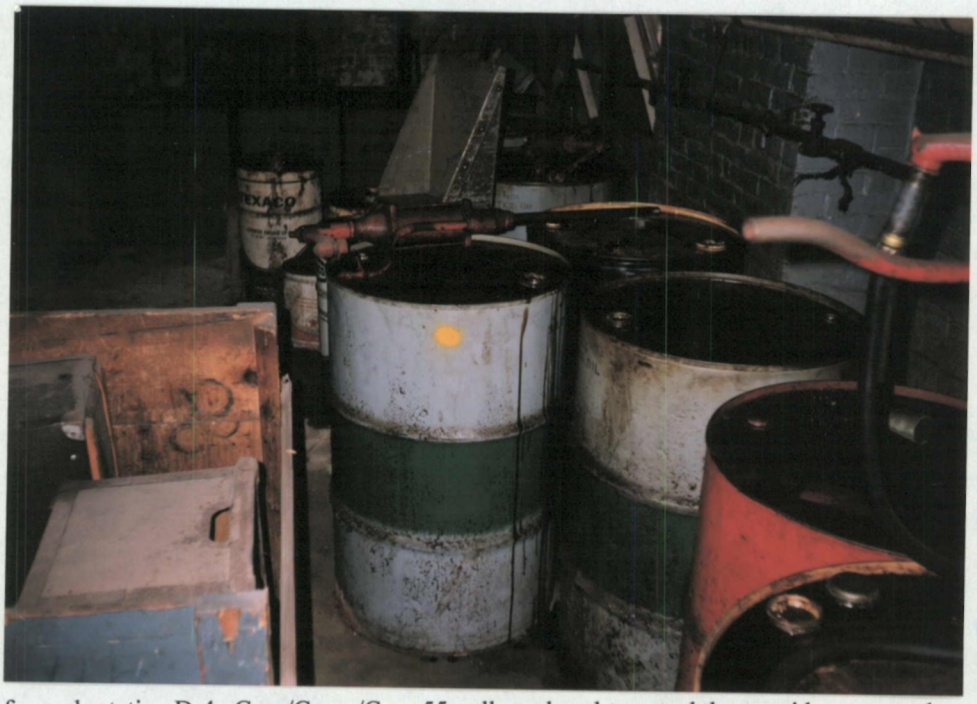
SCENE: View of sample station D-2. Blue, open-top 55-gallon steel drum, at least half full with oil or an oily liquid, located on first floor of No.1 Storehouse, along west wall.

FRAME NUMBER: 04 **DATE:** 10 March 1998 **TIME:** 1540 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of sample station D-3. Grey/Green/Grey 55-gallon , closed-top steel drum, with contents, located on second floor of No.1 Storehouse, at the southwest portion of the room.

FRAME NUMBER: 05 **DATE:** 10 March 1998 **TIME:** 1550 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME



SCENE: View of sample station D-4. Grey/Green/Grey 55-gallon, closed-top steel drum, with contents, located on second floor of No.1 Storehouse, at the southwest corner of the room along the west wall (south of sample station D-3).

FRAME NUMBER: 06 **DATE:** 10 March 1998 **TIME:** 1600 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

TOP

SCENE: View of sample station D-5. Blue, closed-top 55- gallon (approximate) plastic drum, with contents, located on the third floor of No.1 Storehouse, in a separate room at the southwest portion of the third floor. Labeled as B-A Solution.

FRAME NUMBER: 07 **DATE:** 10 March 1998 **TIME:** 1620 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

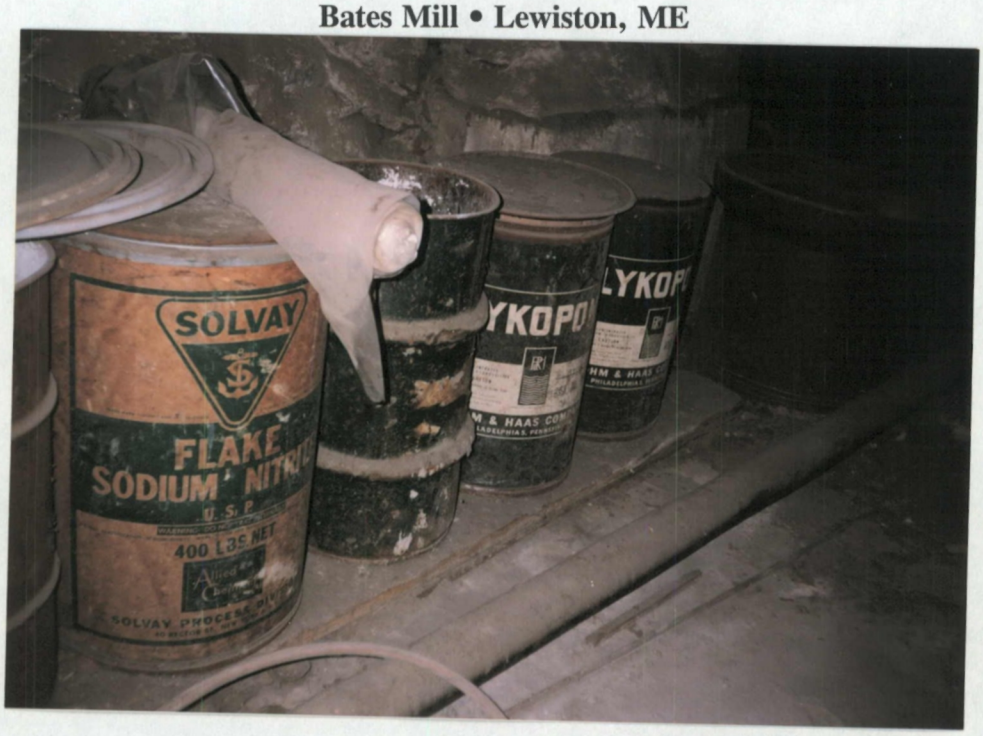
SCENE: View of sample station F-4. Puddle of watery oil, dark color, located on third floor of No.1 Storehouse at the southeast portion of the room.

FRAME NUMBER: 08 **DATE:** 10 March 1998 **TIME:** 1640 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of two 55-gallon fiber drums, with contents, along the north wall of the basement of No.1 Storehouse. Labeled as USCOSET-AM-1, contains formaldehyde.

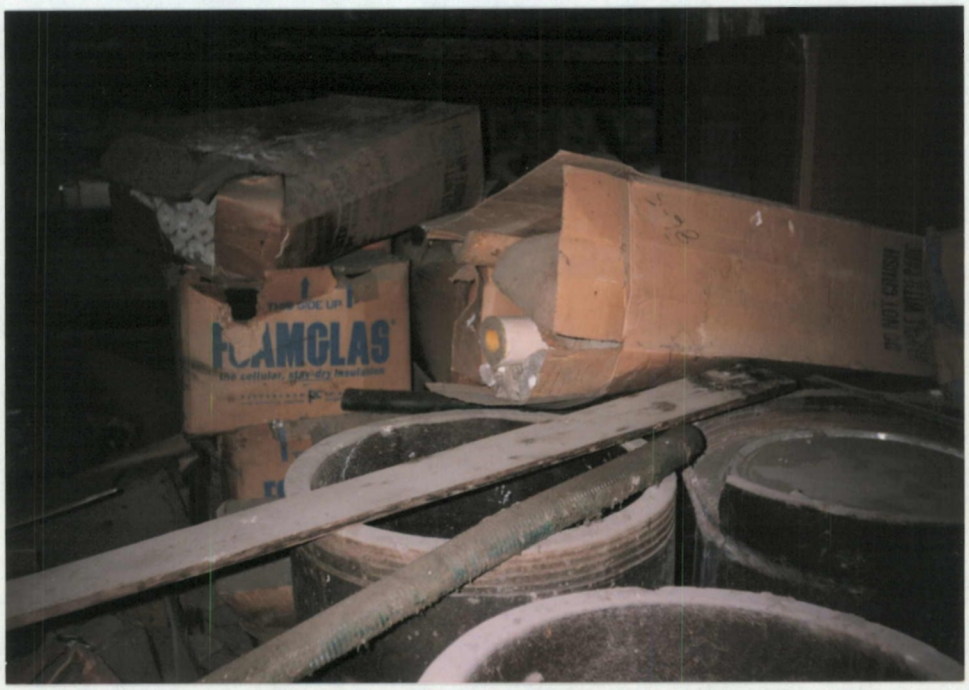
FRAME NUMBER: 09 **DATE:** 11 March 1998 **TIME:** 1015 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME



SCENE: View of miscellaneous drums, with contents, in the No.1 Storehouse, along the north wall at the northeast portion of the basement level. Drum in foreground labeled as flake sodium nitrate. Drums in rear labeled as Lykopon, concentrated sodium hydrosulfite.

FRAME NUMBER: 10 **DATE:** 11 March 1998 **TIME:** 1016 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108



SCENE: View of boxes of suspected ACM pipe insulation, on the basement level of No.1 storehouse, northeast portion of the basement.

FRAME NUMBER: 11 **DATE:** 11 March 1998 **TIME:** 1020 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of numerous boxes of suspected ACM pipe insulation, on the basement level of No.1 Storehouse, easternmost half of the basement.

FRAME NUMBER: 12 **DATE:** 11 March 1998 **TIME:** 1021 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of boxes of suspected ACM pipe insulation, basement level of No. 1 Storehouse, eastern portion of the basement.

FRAME NUMBER: 13 **DATE:** 11 March 1998 **TIME:** 1022 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of two black, closed-top, 55-gallon steel drums with contents, and a plastic bag which is taped closed and is labeled "Asbestos...class 9", located at the eastern portion of the basement level of No.1 Storehouse.

FRAME NUMBER: 14 **DATE:** 11 March 1998 **TIME:** 1023 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of miscellaneous drums along the west wall of the basement level of No.1 Storehouse.

FRAME NUMBER: 15 **DATE:** 11 March 1998 **TIME:** 1035 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of a single 10,000 gallon (approximate) above ground storage tank (AST) located on the basement level of No.1 Storehouse, status of the contents in the tank (if any) are unknown. A pile of suspected ACM pipe insulation is located next to the tank. This area is located in the southwest portion of the basement.

FRAME NUMBER: 16 **DATE:** 11 March 1998 **TIME:** 1057 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

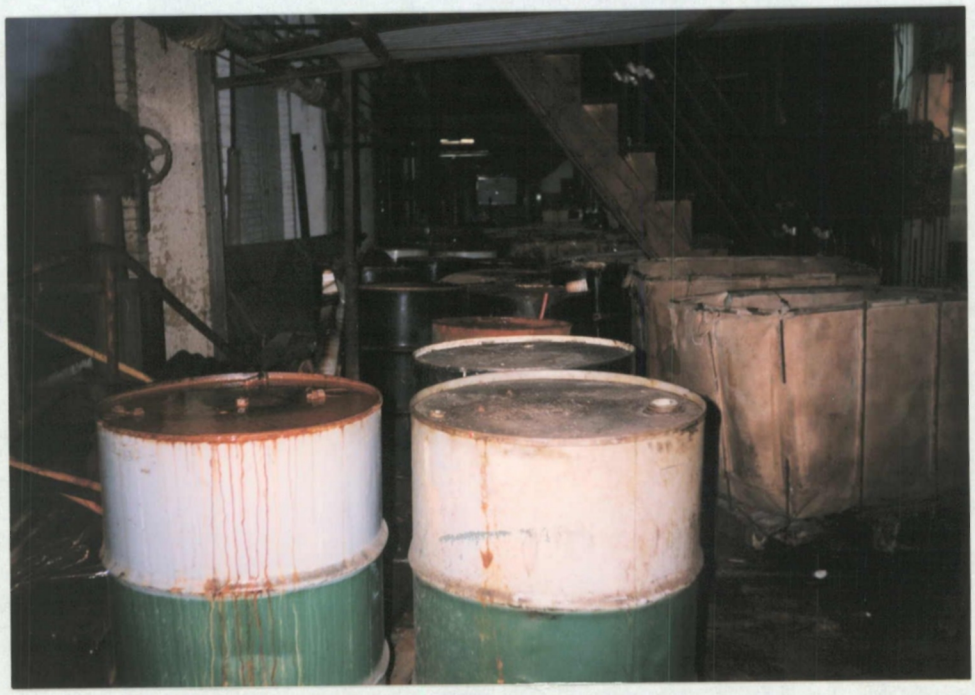
SCENE: View of the southeastern portion of the basement level of No.1 Storehouse, looking north, with drums and boxes of suspected ACM visible.

FRAME NUMBER: 17 **DATE:** 11 March 1998 **TIME:** 1057 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of miscellaneous 55-gallon closed-top steel drums, located on the first floor of the Mill No.4/Bleachery , along the south wall, looking east. Some of the drums labeled as dyes and germicides.

FRAME NUMBER: 18 **DATE:** 11 March 1998 **TIME:** 1120 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108



SCENE: View of miscellaneous closed-top 55-gallon steel drums, located on the first floor of Mill No.4/Bleachery, along the south wall, looking west. Some of the drums labeled as dyes and germicides.

FRAME NUMBER: 19 **DATE:** 11 March 1998 **TIME:** 1121 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of two off-line electrical transformers possibly containing oil with polychlorinated biphenyls (PCBs), located at the southeastern portion of the second floor of No. 1 Storehouse, near the stairwell entryway.

FRAME NUMBER: 20 **DATE:** 11 March 1998 **TIME:** 1326 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of single off-line electrical transformer, possibly containing oil with PCBs, located at the southwest portion of the second floor of No. 1 Storehouse, looking southwest.

FRAME NUMBER: 21 **DATE:** 11 March 1998 **TIME:** 1327 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP

SCENE: View of miscellaneous drums located at the northern half of the third floor of No. 1 Storehouse, near the center of the room, looking northeast. One labeled as resin for zeolite water softener.

FRAME NUMBER: 23 **DATE:** 11 March 1998 **TIME:** 1335 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

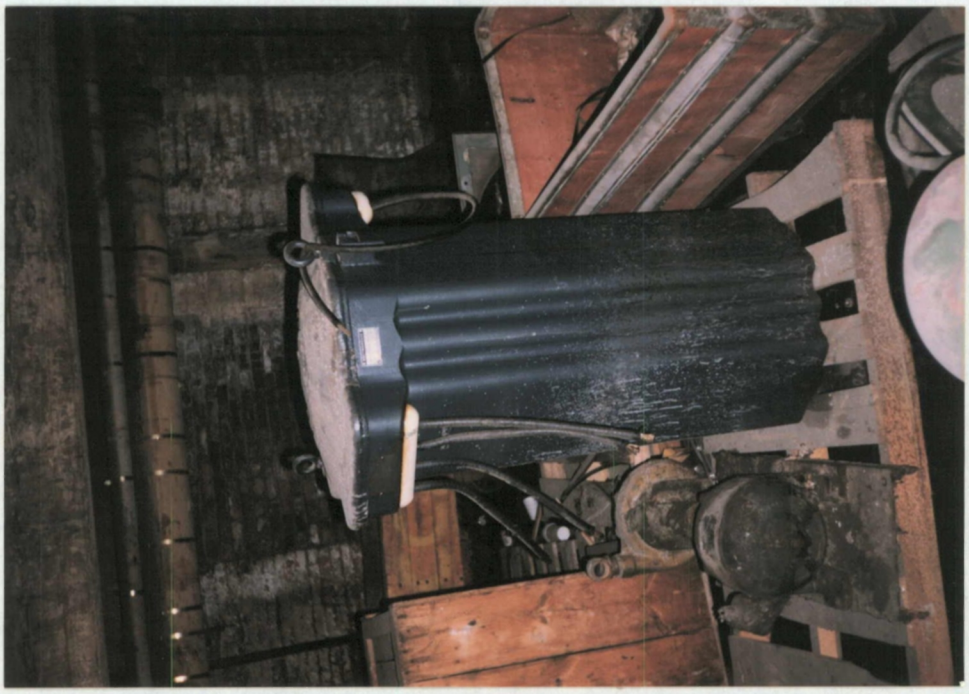
TOP

SCENE: View of miscellaneous drums, located at the western half of the third floor of No. 1 Storehouse, looking northwest, near the center of the room. Labeled as dyes and Reactex 711.

FRAME NUMBER: 24 **DATE:** 11 March 1998 **TIME:** 1342 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP



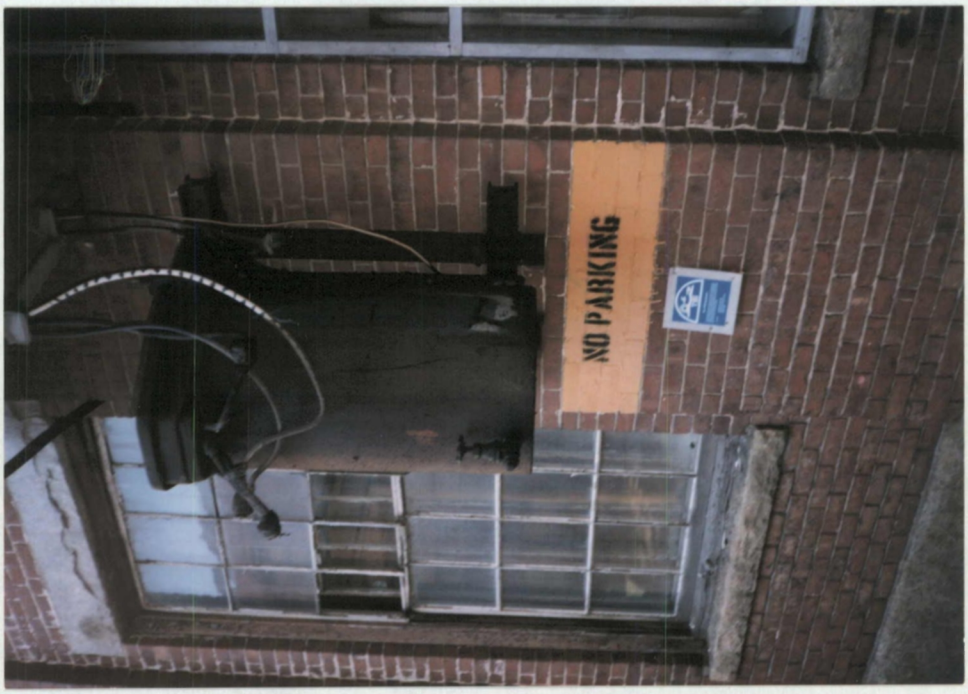
SCENE: View of large off-line, electrical transformer, possibly containing oil with PCBs, located at the southeast portion of the third floor of No. 1 Storehouse, looking east (near sample station F-4).

FRAME NUMBER: 22 **DATE:** 11 March 1998 **TIME:** 1332 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

SCENE: View of miscellaneous drums located within/near the entrance to the separate room at the southwest portion of the third floor of No. 1 Storehouse, looking north. Most labelled as dyes.

FRAME NUMBER: 25 **DATE:** 11 March 1998 **TIME:** 1345 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53108

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME



TOP

SCENE: View of a wall mounted electrical transformer possibly containing oil with PCBs, located on the outside west wall of Mill No.2, facing Mill No. 3 Annex (catch basin located beneath the transformer, not shown in picture).

FRAME NUMBER: 00 **DATE:** 11 March 1998 **TIME:** 1410 **SKY CONDITION:** Sunny
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

TOP

SCENE: View of sample station D-6. Two 55-gallon closed-top steel drums located in small room off of the north side of No. 2 Wing, looking south (sample station is red drum on left). Red drum on left labeled as ethyl alcohol.

FRAME NUMBER: 01 **DATE:** 11 March 1998 **TIME:** 1412 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP

SCENE: View of sample station D-11. An approximate 30-gallon, closed-top steel drum, located along room divider wall (north side) in the southern portion of the first floor of Mill No. 2, looking south. Labeled as ammoniated nitrate cleaner.

FRAME NUMBER: 02 **DATE:** 11 March 1998 **TIME:** 1418 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

TOP

SCENE: View of sample station D-7, a black 55-gallon closed-top steel drum along the divider wall (north side) at the southern portion of the first floor of Mill No. 2, looking south.

FRAME NUMBER: 03 **DATE:** 11 March 1998 **TIME:** 1419 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of sample stations D-8 and D-9. One 55-gallon closed-top steel drum and one 30-gallon drum (approximate) closed-top steel drum along outside wall of small room located on east side of the first floor of Mill No. 2. Drum on left labeled as BR cleaner.

FRAME NUMBER: 04 **DATE:** 11 March 1998 **TIME:** 1420 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

SCENE: View of sample station D-10. One 55-gallon closed-top blue plastic drum and one 30-gallon (approximate) closed-top steel drum (blue colored drum), with hand pump located in the small room along the east side of the first floor of Mill No. 2 (looking north). Drum on left labeled as heavy duty alkaline cleaner, corrosive. Drum on right labeled as weed killer.

FRAME NUMBER: 05 **DATE:** 11 March 1998 **TIME:** 1422 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of sample station T-1. Access hatch opening to "railroad" tanker car No.1, an approximate 20,000 gallon AST. View is through the floor of Mill No. 4/Bleachery (easternmost of two "railroad" tanker cars).

FRAME NUMBER: 06 **DATE:** 11 March 1998 **TIME:** 1508 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

SCENE: View of sample station T-1. Access hatch cover to 20,000 gallon (approximate) "railroad" tanker car. View is from first floor of the Mill No. 4/Bleachery.

FRAME NUMBER: 07 **DATE:** 11 March 1998 **TIME:** 1508 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

SCENE: View of sample station T-2, opening to the access hatch cover of "railroad" tanker car No. 2, an approximate 20,000 gallon AST (view through floor of Mill No. 4/Bleachery), westernmost of two "railroad" tanker cars.

FRAME NUMBER: 08 **DATE:** 11 March 1998 **TIME:** 1510 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

SCENE: View of sample station T-2. Access hatch cover to 20,000 gallon (approximate) "railroad" tanker car. View is from first floor of the Mill No. 4/Bleachery.

FRAME NUMBER: 09 **DATE:** 11 March 1998 **TIME:** 1510 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP

SCENE: View of sample stations D-12 and D-13. View of miscellaneous drums and bags of dry solid powders located in storage room in the northeast corner of the first floor of No. 1 Storehouse. View through a large swing door, looking north.

FRAME NUMBER: 10 **DATE:** 11 March 1998 **TIME:** 1515 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

SCENE: View of sample stations D-12 and D-13. View of miscellaneous drums and containers along the east wall of the storage room located at the northeast corner of first floor of No.1 Storehouse (looking east). One drum labeled as ammonium sulfate.

FRAME NUMBER: 11 **DATE:** 11 March 1998 **TIME:** 1515 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

TOP

SCENE: View of sample station D-14. View of miscellaneous fiber drums located in the storage room at the northeast corner of the first floor of No.1 Storehouse (looking south).

FRAME NUMBER: 12 **DATE:** 11 March 1998 **TIME:** 1517 **SKY CONDITION:** Indoors
PHOTOGRAPH BY: James Fein **WITNESS(ES):** Jenifer Sullivan
CAMERA: Olympus **SETTING:** Automatic **FILM TYPE:** 35-mm **FILM ROLL:** SU 53093

PHOTOGRAPHY LOG SHEET
Bates Mill • Lewiston, ME

Roy F. Weston, Inc.
217 Middlesex Turnpike
Burlington, Massachusetts 01803-3308

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
EPA CONTRACT 68-W5-0009

Negatives

APPENDIX K

Chain-of-Custody Record

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

Roy F. Weston Inc. (START)

CHAIN OF CUSTODY RECORD TDD# 98-03-0002 PCS# 3435

PROJ. NO.	PROJECT NAME
	BATES MILL, Lewiston, MAINE

SAMPLERS: (Signature) Eric D. Ackerman, Patricia Coppola

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	FLASHPOINT	VOC	SVOC	PH	PCB	METALS XRF	REMARKS / FPA SAMPLE CARD NO.
D-6	3/11/98	1000		X	DRUM IN ROOM OFF OF WING NO. 2	2-40ml VOA VIALS	X	X					07774
D-7	3/11/98	1020		X	DRUM IN SOUTH END OF MILL NO. 2	1-40ml VOA VIAL					X		07775
D-8	3/11/98	1035		X	DRUM LABELLED HERBICIDE ~~SUBSTANCE~~ IN MILL NO. 2	3-40ml VOA VIALS	X	X	X				07776
D-9	3/11/98	1045		X	DRUM IN MILL NO. 2	1-40ml VOA VIAL				X			07777
D-10	3/11/98	1100		X	DRUM IN ROOM OFF OF MILL NO. 2	3-40ml VOA VIALS	X	X	X				07779
D-11	3/11/98	1110		X	DRUM LABELLED AMMONIUM CARBAMATE	2-40ml VOA VIALS		X		X			07780
D-12	3/11/98	1205		X	DRUM LABELLED IN SMELLY ROOM "TAMOL SN"	1-40ml VOA VIALS				X		X	1 VIAL pH/metals 07782
D-13	3/11/98	1215		X	DRUM LABELLED "AMMONIUM HEXAMETASULFATE"	1-40ml VOA VIAL				X			07783
D-14	3/11/98	1240		X	DRUM IN SMELLY ROOM	1-40ml VOA VIAL				X			07784
T-1	3/11/98	1120		X	"RAILROAD TANK CAR"	1-8 ounce AMBER				X			07778
T-2	3/11/98	1150		X	"RAILROAD TANK CAR"	1-40ml VOA VIAL				X			07781

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	3/12/98 1036				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
					[signature]
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		[signature]	3/12/98 1036	OSC Paul Groulx	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1-9413

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

Roy F. Weston, Inc. (START)

CHAIN OF CUSTODY RECORD TDD No. 98-03-0002 PCS 3435

PROJ. NO.

PROJECT NAME LEWISTON, MAINE BATES MILL

SAMPLERS: *(Signature)* [signature] [signature] [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCB	ASBESTOS	pH	CYANIDE	FLASHPOINT	VOC	SVOC	REMARKS (EPA SAMPLE CARD NO.)
F-1	3/10/98	1415		X	BASEMENT OF STOREHOUSE FLOOR BENEATH BLEACHERY	1-40ml VOA VIAL		X						07761
F-2	3/10/98	1430		X	BENEATH BLEACHERY - UNDER "RAILCAR"	2-40ml VOA VIALS		X	X	X				07762 1 VIAL pH, ASBESTOS / 1 VIAL-CN
F-3	3/10/98	1420		X	LOWER BASEMENT - GEARSHAFT ACROSS FROM TANKER	1-40ml VOA VIAL		X						07763
F-4	3/10/98	1615		X	THIRD FLOOR OF STOREHOUSE - NEXT TO PALLET ENTRANCE	1-40ml VOA VIAL	X							07764
D-1	3/10/98	1445		X	FIRST FLOOR STOREHOUSE - RED FIBRE DRUM	1-40ml VOA VIALS	X							07765
D-2	3/10/98	1445		X	FIRST FLOOR STOREHOUSE - OPEN TOP STEEL DRUM	1-40ml VOA VIALS	X							07766
D-3	3/10/98	1510		X	SECOND FLOOR STOREHOUSE - NO BUNG STEEL DRUM (TEXACO)	1-40ml VOA VIALS	X							07770
D-4	3/10/98	1510		X	SECOND FLOOR STOREHOUSE - STEEL DRUM (TEXACO)	1-40ml VOA VIALS	X							07767
D-5	3/10/98	1610		X	THIRD FLOOR STOREHOUSE - BLUE POLY DRUM	6-40ml VOA VIALS	X		X	X	X	X	X	07768
TB-1	3/9/98	1430		X	TRIP BLANK	1-40ml VOA Vial						X		07754 preserved w. HCl to pH<2
TB-2	3/9/98	1430		X	TRIP BLANK	1-40ml VOA Vile						X		07755 preserved w. HCl to pH<2
TB-3	3/9/98	1430		X	TRIP BLANK	1-40ml VOA VIAL						X		07756 preserved w. HCl to pH<2

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
[signature]	3/12/98 1035				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*

Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)*	Date / Time	Remarks
		[signature]	3/12/98 1035	OSC Paul Groulx

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1-9412

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS / Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other Asbestos	
Organics	☐	O&G	☐	(Basement of Storehouse Floor)	
VOA's	☐				

METALS	Total	Dissolved			
Cd	☐	Fe	☐	Pb	☐
Cu	☐	Hg	☐	Sn	☐
Cr (T)	☐	Mn	☐	Zn	☐
*Cr (+6)	☐	Ni	☐	Other	

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07761

PROJECT # ☐☐☐☐☐☐

STATION # F-1☐☐

Y Y M M D D

DATE 980510

COLLECTION TIME 1415

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS / Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other Asbestos & pH	
Organics	☐	O&G	☐	(Beneath bleachers - under railcar)	
VOA's	☐				

METALS	Total	Dissolved			
Cd	☐	Fe	☐	Pb	☐
Cu	☐	Hg	☐	Sn	☐
Cr (T)	☐	Mn	☐	Zn	☐
*Cr (+6)	☐	Ni	☐	Other Cyanide	

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07762

PROJECT # ☐☐☐☐☐☐

STATION # F-2☐☐

Y Y M M D D

DATE 980510

COLLECTION TIME 1430

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other Asbestos	
Organics	☐	O&G	☐	(Lower basement - guardhouse access from tanker)	
VOA's	☐				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other ____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07763

PROJECT # ☐☐☐☐☐☐

STATION # F-3☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1420

SAMPLE TEMP °C 4/PC

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other ____	
Organics	☐	O&G	☐	(3rd floor storehouse - next to pallet @ entrance)	
VOA's	☐				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other ____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07764

PROJECT # ☐☐☐☐☐☐

STATION # F-4☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1615

SAMPLE TEMP °C 4/PC

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐		
VOA's	☐				

(1st floor storehouse - red fiber drum)

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07765

PROJECT # ☐☐☐☐☐☐

STATION # 0-1☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1445

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐		
VOA's	☐				

(1st Floor - open top steel Storehouse drum)

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07766

PROJECT # ☐☐☐☐☐☐

STATION # 0-2☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1445

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR JS/PC/EPA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐		
VOA's	☐				

(2nd Floor Storehouse - no bung / Texaco)

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07770

PROJECT # ☐☐☐☐☐☐

STATION # D-3☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1510

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR EPA/JS/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐		
VOA's	☐				

(2nd "Texaco" Floor Storehouse)

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07767

PROJECT # ☐☐☐☐☐☐

STATION # D-4☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1510

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR JS/EA/PC

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD (pH = 7-8)

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other SVOC, pH, flash	
Organics	☐	O&G	☐	(3rd Floor Storeroom - Blue poly drum)	
VOA's	☒				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other Cyanide

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07768

PROJECT # ☐☐☐☐☐☐

STATION # D-5 ☐☐

Y Y M M D D

DATE 980310

COLLECTION TIME 1610

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR JF/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS INDOOR (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐	preserved with HCl to pH < 2	
VOA's	☒				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07754

PROJECT # ☐☐☐☐☐☐

STATION # TB-1 ☐☐

TRIP BLANK

Y Y M M D D

DATE 980309

COLLECTION TIME 1430

SAMPLE TEMP °C 40°F

PROBE-D.O. (mg/l) -.-

pH - S.U. --.-

CONDUCTIVITY (micromhos/cm) --.-

SALINITY (0/00) --.-

TOTAL DEPTH (ft) --

SAMPLING DEPTH (ft) -.-

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR JF/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS INDOOR (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH_3	☐	COD	☐
BOD	☐	NO_{2+3}	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐	preserved with HCl to pH < 2	
VOA's	☒				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07755

PROJECT # ☐☐☐☐☐☐

STATION # TB-2 TRIP BLANK

Y Y M M D D

DATE 980309

COLLECTION TIME 1430

SAMPLE TEMP °C 40 °F

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR JF/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS INDOOR (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH_3	☐	COD	☐
BOD	☐	NO_{2+3}	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other	
Organics	☐	O&G	☐	preserved with HCl to pH < 2	
VOA's	☒				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07756

PROJECT # ☐☐☐☐☐☐

STATION # TB-3 TRIP BLANK

Y Y M M D D

DATE 980309

COLLECTION TIME 1430

SAMPLE TEMP °C 40 °F

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoor (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other Pushpoint	
Organics	☐	O&G	☐		
VOA's	☒				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07774

PROJECT # ☐☐☐☐☐☐

STATION # 0-6☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1000

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☒
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other _____	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07775

PROJECT # ☐☐☐☐☐☐

STATION # 0-7☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1020

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other Flashpoint, SVOC	
Organics	☐	O&G	☐		
VOA's	☒				

METALS		Total		Dissolved	
Cd	☐	Fe	☐	Pb	☐
Cu	☐	Hg	☐	Sn	☐
Cr (T)	☐	Mn	☐	Zn	☐
Cr (+6)	☐	Ni	☐	Other	

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07776

PROJECT # ☐☐☐☐☐☐

STATION # D-8☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1035

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS		Total		Dissolved	
Cd	☐	Fe	☐	Pb	☐
Cu	☐	Hg	☐	Sn	☐
Cr (T)	☐	Mn	☐	Zn	☐
Cr (+6)	☐	Ni	☐	Other	

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07777

PROJECT # ☐☐☐☐☐☐

STATION # D-9☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1045

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS INDOORS (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other SVOC, FLASHPOINT	
Organics	☐	O&G	☐		
VOA's	☒				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07779

PROJECT # ☐☐☐☐☐☐

STATION # D-10☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1100

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☒				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07780

PROJECT # ☐☐☐☐☐☐

STATION # D-11☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1110

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other ____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07782

PROJECT # ☐☐☐☐☐☐

STATION # D-12☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1205

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total		Dissolved	
Cd	☐	Fe	☐	Pb ☐
Cu	☐	Hg	☐	Sn ☐
Cr (T)	☐	Mn	☐	Zn ☐
*Cr (+6)	☐	Ni	☐	Other ____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07783

PROJECT # ☐☐☐☐☐☐

STATION # D-13☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1215

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS INDOORS (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07784

PROJECT # ☐☐☐☐☐☐

STATION # D-14☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1240

SAMPLE TEMP °C 4C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, Me

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH3	☐	COD	☐
BOD	☐	NO2 + 3	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07778

PROJECT # ☐☐☐☐☐☐

STATION # T-1☐☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1120

SAMPLE TEMP °C 4C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION I

PROJECT Bates Mill STATE Lewiston, ME

COLLECTOR PC/EA

FIELD OBSERVATIONS: CLEAR, OVERCAST, RAIN, SNOW, FOG
PARTIAL CLOUDS Indoors (CIRCLE ONE)

AIR TEMP °C TIDE: HIGH, EBB, LOW, FLOOD

PARAMETERS (CHECK APPROPRIATE)

Bacti	☐	NH_3	☐	COD	☐
BOD	☐	NO_{2+3}	☐	PCB	☐
TSS	☐	TKN	☐	X-Ray	☐
Turb	☐	T-P	☐	Other pH	
Organics	☐	O&G	☐		
VOA's	☐				

METALS	Total	Dissolved
Cd ☐	Fe ☐	Pb ☐
Cu ☐	Hg ☐	Sn ☐
Cr (T) ☐	Mn ☐	Zn ☐
*Cr (+6) ☐	Ni ☐	Other _____

EPA R-1 7500-30

*Unpreserved Sample

LAB CODE Nº 07781

PROJECT # ☐☐☐☐☐☐

STATION # T-2☐☐

Y Y M M D D

DATE 980311

COLLECTION TIME 1150

SAMPLE TEMP °C 4°C

PROBE-D.O. (mg/l) ☐.☐

pH - S.U. ☐☐.☐

CONDUCTIVITY (micromhos/cm) ☐☐.☐

SALINITY (0/00) ☐☐.☐

TOTAL DEPTH (ft) ☐☐

SAMPLING DEPTH (ft) ☐☐.☐

Precautionary Measures Against Hidden Hazards in Laboratory Samples

Background

Under the authority of Section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) of 1980, Section 311 of the Clean Water Act, and Subtitle I of the Resource Conservation and Recovery Act (RCRA), EPA has been delegated the responsibility to undertake response actions with respect to the release or potential release of oil, petroleum, or hazardous substances that pose a substantial threat to human health or welfare, or the environment. In addition, EPA provides technical assistance to help mitigate endangerment of public health, welfare, or the environment during other emergencies and natural disasters.

EPA's successful implementation of these emergency response action responsibilities requires that technical support capabilities be provided in the form of the contracted Superfund Technical Assessment and Response Team (START) for EPA Region I under START Contract 68-W5-0009.

Notice to Laboratory Management

The samples which may be sent to your laboratory for analysis will be shipped in accordance with applicable D.O.T. or IATA Regulations and will have been collected by the WESTON START and will have been tentatively designated by the field response team as either environmental or hazardous material samples.

In general, *Environmental Samples* are collected from streams, farm ponds, small lakes, wells, and off-site soils that are not reasonably expected to be contaminated with hazardous materials. Samples of on-site soils or water, and materials collected from drums, bulk storage tanks, obviously contaminated ponds, impoundments, lagoons, pools, and leachates from hazardous waste sites are considered *Hazardous Samples*. Samples which are obtained from a known radioactive material contamination site or which demonstrate beta or gamma activity greater than three times average background as scanned with a Geiger-Mueller radiation survey meter are considered *Radioactive Samples*.

The samples which may be submitted to your laboratory will have been tentatively classified by the field response team as one or more of the following categories.

__ Environmental X Hazardous __ Comb. (Envir.& Haz.) __ Radioactive

The field team which collected the samples may have used one of the following Level(s) of personal protection as designated by EPA and OSHA conventions to provide protection against possible radiological or chemical exposure:

__ Level A X Level B __ Level C __ Level D

This information is intended for use as a guide for the safe handling of potentially hazardous laboratory samples in accordance with EPA and OSHA regulations. The sample classification(s) and Levels of personal protection used by the WESTON START are not represented to be, nor are they adequate or applicable in all situations, nor are they intended to serve as substitutes for professional/personal judgement.

Execution of this form is a condition precedent to Award of a Laboratory Services subcontract.
A similar form which will not require a confirming signature will be completed by WESTON and will be included with "Chain of Custody" paperwork which will accompany each sample shipment.

781 (SF) 781 (SP)

WESTON Office: R.F. Weston, Inc. - Region I Phone: ~~(617)~~229-6430 Fax: ~~(617)~~ 272-3619

Address: 217 Middlesex Turnpike, Burlington, MA 01803

Laboratory Name: NERL Phone: 781-860-4300 Fax: 781-860-4397

Address: 60 Westview St, Lexington MA 02173

Accepted by: [signature] Title: _____ Date 3/12/98

Authorized Signature

Printed Name: _____

T:\START\AS\precaut.trm

APPENDIX L

Polychlorinated Biphenyl Analytical Data

Paul Groulx

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02173-3185

DATE: March 30, 1998

SUBJ: Analysis of Polychlorinated Biphenyls (PCBs) in Water Samples - **BATES MILL**

FROM: Peter Philbrook, Chemistry Section PEP

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Paul Groulx WJA 3/31/98

PROJECT NUMBER: 98175

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-in (EIA-ADMLOGN1.SOP, 7/97).

Sample preparation was done by the EPA Region I SOP PESWAML1.SOP. The analysis was carried out using high resolution capillary column chromatography. The 30-m dual capillary system consists of J&W DB-1701 and J&W DB-5, both with a 0.25mm ID and a 0.25 micron film thickness.

The analytical support for this report was performed by NEAT contractors.

Date Samples Received by the Laboratory: 03/12/98

Date Analysis Started: 03/16/98

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98175WA.PCB

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. One method blank was included in the analysis.

2. Each sample was spiked with the surrogate compounds, decachlorobiphenyl and tetrachloroxylene, at a concentration of ~5 ug/L. The results for the surrogate recoveries are reported out with each sample.

3. One sample,LFB, was spiked with Aroclor-1260 at a concentration of ~30 ug/L as a matrix spike. The recovery is listed below.

PCB	Recovery
Aroclor-1260	105

SAMPLES ANALYZED: BLANK, LFB, 07764, 07765, 07768

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: **Surrogate recoveries for sample 07764 were very low. The sample was a dark black color and formed one large black emulsion after shaking in the separatory funnel. The emulsion required centrifuging to separate.**
There were no surrogate recoveries determined for sample 07768. The GC trace had no trace of surrogate recoveries. This sample was a yellow/brown color and a solid yellow ball formed upon addition of Sodium Chloride to the separatory funnel.

Additional comments: None

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.:	BLANK	Matrix:	Drum (Aqueous)
DATE OF COLLECTION:	NOT APPLICABLE	Sample pH:	N/A
DATE OF EXTRACTION:	03/16/98	Final Volume:	5 mL
DATE OF ANALYSIS:	03/19/98	Dilution:	1X
AMOUNT EXTRACTED:	40 mL	Report Factor:	2.5

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
12674-11-2	34671	Aroclor-1016	ND	12	
11104-28-2	39488	Aroclor-1221	ND	12	
11141-16-5	39492	Aroclor-1232	ND	12	
53469-21-9	39496	Aroclor-1242	ND	12	
12672-29-6	39500	Aroclor-1248	ND	12	
11097-69-1	39504	Aroclor-1254	ND	12	
11096-82-5	39508	Aroclor-1260	ND	12	
11100-14-4	81650	Aroclor-1262	ND	12	
37324-23-5	81650	Aroclor-1268	ND	12	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	92
2,4,5,6-Tetrachloro-m-xylene	64

Notes:

RL = Reporting limit
(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)
ND = None detected
~ = Approximate
< = Less than
> = Greater than
NA = Not applicable due to high sample dilutions or sample interferences
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
D = Detected but too low to quantitate.
C = The identification has been confirmed by GC/MS.

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.:	07764	Matrix:	Drum (Aqueous)
DATE OF COLLECTION:	03/10/98	Sample pH:	N/A
DATE OF EXTRACTION:	03/16/98	Final Volume:	5 mL
DATE OF ANALYSIS:	03/19/98	Dilution:	1X
AMOUNT EXTRACTED:	40 mL	Report Factor:	2.5

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
12674-11-2	34671	Aroclor-1016	ND	12	
11104-28-2	39488	Aroclor-1221	ND	12	
11141-16-5	39492	Aroclor-1232	ND	12	
53469-21-9	39496	Aroclor-1242	ND	12	
12672-29-6	39500	Aroclor-1248	ND	12	
11097-69-1	**39504**	**Aroclor-1254**	**8.5**	**12**	**L**
11096-82-5	39508	Aroclor-1260	ND	12	
11100-14-4	81650	Aroclor-1262	ND	12	
37324-23-5	81650	Aroclor-1268	ND	12	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	10
2,4,5,6-Tetrachloro-m-xylene	26

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.:	07765	Matrix:	Drum (Aqueous)
DATE OF COLLECTION:	03/10/98	Sample pH:	N/A
DATE OF EXTRACTION:	03/16/98	Final Volume:	5 mL
DATE OF ANALYSIS:	03/19/98	Dilution:	1X
AMOUNT EXTRACTED:	40 mL	Report Factor:	2.5

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
12674-11-2	34671	Aroclor-1016	ND	12	
11104-28-2	39488	Aroclor-1221	ND	12	
11141-16-5	39492	Aroclor-1232	ND	12	
53469-21-9	39496	Aroclor-1242	ND	12	
12672-29-6	39500	Aroclor-1248	ND	12	
11097-69-1	39504	Aroclor-1254	ND	12	
11096-82-5	39508	Aroclor-1260	ND	12	
11100-14-4	81650	Aroclor-1262	ND	12	
37324-23-5	81650	Aroclor-1268	ND	12	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	53
2,4,5,6-Tetrachloro-m-xylene	81

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.:	07768	Matrix:	Drum (Aqueous)
DATE OF COLLECTION:	03/10/98	Sample pH:	N/A
DATE OF EXTRACTION:	03/16/98	Final Volume:	5 mL
DATE OF ANALYSIS:	03/19/98	Dilution:	1X
AMOUNT EXTRACTED:	40 mL	Report Factor:	2.5

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
12674-11-2	34671	Aroclor-1016	ND	12	
11104-28-2	39488	Aroclor-1221	ND	12	
11141-16-5	39492	Aroclor-1232	ND	12	
53469-21-9	39496	Aroclor-1242	ND	12	
12672-29-6	39500	Aroclor-1248	ND	12	
11097-69-1	39504	Aroclor-1254	ND	12	
11096-82-5	39508	Aroclor-1260	ND	12	
11100-14-4	81650	Aroclor-1262	ND	12	
37324-23-5	81650	Aroclor-1268	ND	12	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	0
2,4,5,6-Tetrachloro-m-xylene	0

Paul Groulx

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02173-3185

DATE: March 30, 1998

SUBJ: Polychlorinated Biphenyl Analysis in Transformer Fluid and Waste Oils - **BATES MILL**

FROM: Peter Philbrook, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist
WJA 3/31/98

TO: Paul Groulx

PROJECT NUMBER: 98175

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-in (EIA-ADMLOGN1.SOP, 7/97).

EPA Region 1 Procedure: Medium Level Polychlorinated Biphenyls (PCBs) in Oil Samples, PCBOIML1.SOP.

The analytical support for this report was performed by ESAT contractors.

Date(s) Samples Received by the Laboratory: 03/12/98

Date Analysis Started: 03/16/98

cc:

File: J:\CHEMSTRY\REPORTS\PCB-PEST\98175OI.PCB

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. One method blank was included in the analysis.

2. Each sample was spiked with the surrogate compounds, tetrachloroxylene and decachlorobiphenyl at approximately 10 mg/Kg. The recoveries are reported out with the data.

3. One sample, 07770, was spiked with Aroclor-1260 at approximately 60 mg/Kg. The recovery is listed below.

PCB	Recovery (%)
Aroclor-1260	79

SAMPLE(S) ANALYZED: BLANK, 07766, 07767, 07770, 07770 MS, 077

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: BLANK
DATE SAMPLED: Not Applicable
DATE EXTRACTED: 03/16/98
DATE ANALYZED: 03/19/98
AMOUNT EXTRACTED: 0.10

Matrix: Oil
Final Volume: 10 mL
Extract Dilution: 1.0
Report Factor: 1.0

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	10	
11104-28-2	Aroclor-1221	ND	10	
11141-16-5	Aroclor-1232	ND	10	
53469-21-9	Aroclor-1242	ND	10	
12672-29-6	Aroclor-1248	ND	10	
11097-69-1	Aroclor-1254	ND	10	
11096-82-5	Aroclor-1260	ND	10	
11100-14-4	Aroclor-1262	ND	10	
37324-23-5	Aroclor-1268	ND	10	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	98
2,4,5,6-Tetrachloro-m-xylene	100

Notes:

RL = Reporting limit
ND = None detected
~ = Approximate
< = Less than
> = Greater than
NA = Not applicable due to sample dilutions or interferences
E = Estimated value exceeds calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip contamination. Values are qualified when the concentration of the contaminant in the sample is less than ten times the concentration in the
P = The contamination value exceeds 35% difference but less than 100%. The lower value is reported.
D = Detected but too low to quantitate
C = The identification has been confirmed by GC/MS

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: 07767
DATE SAMPLED: 03/10/98
DATE EXTRACTED: 03/16/98
DATE ANALYZED: 03/19/98
AMOUNT EXTRACTED: 0.1053

Matrix: Oil
Final Volume: 10 mL
Extract Dilution: 1.0
Report Factor: 0.9

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	9.0	
11104-28-2	Aroclor-1221	ND	9.0	
11141-16-5	Aroclor-1232	ND	9.0	
53469-21-9	Aroclor-1242	ND	9.0	
12672-29-6	Aroclor-1248	ND	9.0	
11097-69-1	Aroclor-1254	ND	9.0	
11096-82-5	Aroclor-1260	ND	9.0	
11100-14-4	Aroclor-1262	ND	9.0	
37324-23-5	Aroclor-1268	ND	9.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	75
2,4,5,6-Tetrachloro-m-xylene	91

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: 07766
DATE SAMPLED: 03/10/98
DATE EXTRACTED: 03/16/98
DATE ANALYZED: 03/19/98
AMOUNT EXTRACTED: 0.1290

Matrix: Oil
Final Volume: 10 mL
Extract Dilution: 1.0
Report Factor: 0.8

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	8.0	
11104-28-2	Aroclor-1221	ND	8.0	
11141-16-5	Aroclor-1232	ND	8.0	
53469-21-9	Aroclor-1242	ND	8.0	
12672-29-6	Aroclor-1248	ND	8.0	
11097-69-1	Aroclor-1254	ND	8.0	
11096-82-5	Aroclor-1260	ND	8.0	
11100-14-4	Aroclor-1262	ND	8.0	
37324-23-5	Aroclor-1268	ND	8.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	74
2,4,5,6-Tetrachloro-m-xylene	83

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: 07770
DATE SAMPLED: 03/10/98
DATE EXTRACTED: 03/16/98
DATE ANALYZED: 03/19/98
AMOUNT EXTRACTED: 0.1054

Matrix: Oil
Final Volume: 10 mL
Extract Dilution: 1.0
Report Factor: 0.9

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	9.0	
11104-28-2	Aroclor-1221	ND	9.0	
11141-16-5	Aroclor-1232	ND	9.0	
53469-21-9	Aroclor-1242	ND	9.0	
12672-29-6	Aroclor-1248	ND	9.0	
11097-69-1	Aroclor-1254	ND	9.0	
11096-82-5	Aroclor-1260	ND	9.0	
11100-14-4	Aroclor-1262	ND	9.0	
37324-23-5	Aroclor-1268	ND	9.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	69
2,4,5,6-Tetrachloro-m-xylene	87

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
Polychlorinated Biphenyls

SAMPLE NO.: 07775
DATE SAMPLED: 03/10/98
DATE EXTRACTED: 03/16/98
DATE ANALYZED: 03/19/98
AMOUNT EXTRACTED: 0.1535

Matrix: Oil
Final Volume: 10 mL
Extract Dilution: 1.0
Report Factor: 0.6

SAMPLE RESULTS:

CAS NO.	Compound	Amount (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
12674-11-2	Aroclor-1016	ND	6.0	
11104-28-2	Aroclor-1221	ND	6.0	
11141-16-5	Aroclor-1232	ND	6.0	
53469-21-9	Aroclor-1242	ND	6.0	
12672-29-6	Aroclor-1248	ND	6.0	
11097-69-1	Aroclor-1254	ND	6.0	
11096-82-5	Aroclor-1260	ND	6.0	
11100-14-4	Aroclor-1262	ND	6.0	
37324-23-5	Aroclor-1268	ND	6.0	

Sample Recovery for Surrogate Compound:	Observed Recoveries (%)
Decachlorobiphenyl	88
2,4,5,6-Tetrachloro-m-xylene	91

APPENDIX M

Asbestos Analytical Data

Paul G.

ASBESTOS BULK SAMPLE ANALYSIS Page 1 of 1

FOR: Paul Groulx
Region I, EPA
Boston, MA

DATE: 3/24/98 **ANALYST: Scott Clifford**

Analytical Method: PLM with Dispersion Staining **PN: 98175** All Quantities Are Estimated
Volume Percent

LABORATORY ID NO.	07761	07762	07763		
SAMPLE ID NO.	F-1	F-2	F-3		
ADDRESS OR BUILDING	Bates Mill	Bates Mill	Bates Mill		
LOCATION	Lewiston, ME	Lewiston, ME	Lewiston, ME		
SAMPLE APPEARANCE	Light brown dirt, stone, clumps of fibers. White, green and red and blue fibers	White crystal powder and clumps	White cyrstal powder and clumps, brown clump of fiberous material. Also white, green, red and blue fibers.		
ASBESTOS PRESENT (TYPE AND PERCENT)	Chrysotile: Trace Amosite: Crocidolite: Other:	Chrysotile Amosite: Crocidolite: Other:	Chrysotile: Trace Amosite: Crocidolite: Other:	Chrysotile: Amosite: Crocidolite: Other:	Chrysotile: Amosite: Crocidolite: Other:
OTHER FIBROUS MATERIALS PRESENT (TYPE & PRESENT)	Cellulose: 5-10% Mineral Wool: Other: Synthetics - trace	Cellulose: Mineral Wool: Other:	Cellulose: 5-10% Mineral Wool: Trace Other: Synthetics - trace	Cellulose: Mineral Wool: Other:	Cellulose: Mineral Wool: Other:
NON-FIBROUS MATERIALS PRESENT	Mineral particles, rocks		Mineral particles, rocks		
PERCENT TOTAL ASBESTOS PRESENT IN SAMPLE	0%	0%	0%		
REMARKS					

US EPA
60 WESTVIEW STREET, LEXINGTON, MA 02173

APPENDIX N

pH Analytical Data

Paul G.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173

MEMORANDUM **PN: 98175**

DATE: March 31, 1998

SUBJ: **Bates Mill - Drum and Soil pH Results**

FROM: Janet Paquin
Chemist

TO: P. Groulx

THRU: Dr. William J. Andrade WJA 4/9/98
Senior Chemistry Analytical Specialist

Analytical References:

Methods 9045C, from "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd ed., Final Update IIB, Rev. 2 and 3, 1/95." (SOP I-16, Rev. 3/92)

Date Samples Received by Laboratory: 03/12/98

Date Samples Analyzed by Laboratory: 03/24/98 and 03/31/98

File name: 98175so.pH

Results

Values reported as soil and waste pH measured in water at 24 degrees C for sample 07762 and at 22 degrees C for all other samples.

Sample	pH
07762 (ave.)	10.10
07768	8.30
07777	9.95
07778	10.00
07780	10.00
07781	>13.00
07782	10.00
07783 (ave.)	5.50
07784	8.90

Quality Assurance\Quality Control

Laboratory Duplicates:

Sample 07762	Sample 07762 Dup.	Average	RPD
10.10	10.10	10.10	0%
Sample 07781	**Sample 07781 Dup.**	**Average**	**RPD**
**	**	**	**
Sample 07783	**Sample.07783 Dup.**	**Average**	**RPD**
5.50	5.50	5.50	0%

** Sample duplicate was not analyzed since the pH of the sample was outside of the range reported.

Data Quality Statements

Data review chemist:	Dan Curran
Method modifications:	Samples 07762, 07777, 07778, 07782, and 07783 were hydroscopic and required additional reagent water. Amounts less than the 20 grams required by the method were used for samples 07762, 07762 DUP., 07768, 07777, 07778, 07781 DUP., and 07782 due to insufficient amounts of those samples.
Limitations of data:	None
Comments:	Samples 07762, 07777, and 07778 had solids remaining after stirring in water.
Instrument performance Problems:	None
Chain of Custody Abnormalities:	None

APPENDIX O

Cyanide Analytical Data

Paul
G.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173

PN:98175

MEMORANDUM

DATE: March 30, 1998

SUBJ: **Bates Mill - Cyanide Results**

FROM: Janet Paquin
Chemist

TO: P. Groulx

THRU: Dr. William J. Andrade WJA 4/15/98
Advanced Analytical Chemistry Expert

Analytical Procedure: Method 335.2 C.L.P.-M, Method for Total Cyanide Analysis by Midi Distillation, " USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis, Multi-media Multi Concentration, ILMO 4.0, EPA/540/R95/121".

Samples Received by Laboratory: 3/12/98

Samples Analyzed by Laboratory: 3/23/98

File Name: 98175SO.CN

Results:

Sample#	Total Cyanide (ug/gm)*
07762(ave.)	2.7U
07768	1.2U

*** Soil results based on dry weight**

U = None detected above the associated reporting limit

Quality Control:

Quality Control Samples

ICV-6	103% Recovery
0996 LCS	108% Recovery

Laboratory Fortified Blank

LFB low	88% Recovery
LFB high	82% Recovery

Laboratory Duplicates

Sample 07762	Sample 07762 Dup.	Average	RPD
2.5U ug/gm	2.8U ug/gm	2.7U ug/gm	*

* = non detect

Laboratory Fortified Matrix

Sample	% Spike Recovery
07762	73%

Data Quality Statements

Chemist that reviewed data: Mike Dowling

Method modifications and why: None

Limitations of Data: None

List of method contaminants: None

Instrument Performance: Good

Spike recovery problems: None

Comments: None

Unusual visual characteristics of the samples: None

Chain of custody abnormalities: None

APPENDIX P

Flashpoint Analytical Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02173-3185

DATE: March 19, 1998

SUBJ: Flash Point Determination - **BATES MILL**

FROM: Peter Philbrook, Chemistry Section PEP

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist WJA 3/24/98

TO: P. Groulx

PROJECT NUMBER: 98175

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-in (EIA-ADMLOGN1.SOP, 7/97).

The flash points were determined by the EPA Region 1 method, Flashpoint - Setaflash Closed-Cup Method, FLASH3.SOP. Reference: ASTM Method D3278-78

The analytical support for this report was performed by NCOA contractors.

Date Samples Received by the Laboratory: 03/12/98

Date Analysis Started: 03/16/98

cc:

File: J:\CHEMSTRY\REPORTS\MISC\98175DR.FP

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. The flash point of p-xylene was determined each day, prior to the sample analysis.

Date	Observed Flash Points (°C)	Accepted Range (°C) 27.2 ± 0.8	Average Flash Point (°C)
03/16/98 (1st)	27.5C		
03/16/98 (Last)	27.5C		27.5

RESULTS:

Sample	Date	Flash/ No Flash Test (60°C)	Observed Flash Point (°C)	Average Flash Point (°C)	Comments
07768	03/16/98	NO FLASH			
07774	03/16/98	NO FLASH			
07776	03/16/98	NO FLASH			
07779	03/16/98	NO FLASH			

KEY:

- \> = Greater than
- < = Less than
- ≤ = Less than or equal to
- ~ = Approximate
- * = The duplicate analyses did not agree within 1 degree Centigrade (possibly due to sample variation) so the flashpoint was repeated for a total of 5 or 6 values.
- NA = Not Applicable. The flash/no flash test is not done for the duplicates, only the finite flash point is determined.

SAMPLES ANALYZED: 07768, 07774, 07776, 07779

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Peter Philbrook

Method modifications: Our SOP has been modified to include solids in the analysis. All the steps and quality control are the same as in the EPA RCRA method: 'Test Methods for Evaluating Solid Waste', Setaflash Closed Tester, method 1020, Second edition, 1982. This method is based on ASTM Method D327-78.

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: None

Additional comments: None

APPENDIX Q

Volatile Organic Compound Analytical Data

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA. 02173

DATE: March 30, 1998

SUBJECT: **Bates Mill, Lewiston, ME**
Drums–Volatile Organic Analysis by GC/MS

Samples Received: 07755 - Trip Blank, 07768, 07774, 07776, 07779, 07780

FROM: Joseph Montanaro, EIA

TO: Paul Groulx, HBT WJA 4/2/98

THRU: William Andrade, Ph.D., Analytical Specialist

PROJECT NUMBER: 98175

DATE(S) SAMPLES RECEIVED BY THE LABORATORY: 03/12/98

ANALYTICAL PROCEDURE:

Drum: The samples were processed by Method 5035, High Concentration for Solid Waste and Nonaqueous Liquid Waste. The extracts were analyzed by SW-846, Method 8260B, Rev 0, January 1995, (VOAGCMS. SOP 8/97). Data file reference: VOADRML.SOP

QUALITY CONTROL:

1. A method blank was analyzed prior to sample analysis.
2. Each sample was spiked with three surrogate compounds at 25 ppb concentration. The results for the surrogate recoveries are reported for each sample.
3. Sample 07774 was spiked in duplicate and analyzed to determine laboratory precision and accuracy.

DATA FILE: J:\CHEMSTRY\REPORTS\voa\98175dr.wk4

ANALYTICAL PARAMETERS
PURGEABLE ORGANIC ANALYSIS

INSTRUMENTS:	Varion Archon Purge and Trap Autosampler Tekmar LSC-2000 Finnigan INCOS-50 XL

PURGE CONDITIONS:

Gas:	Helium
Purge Time and Flow:	11 min., 40 ml/min
Dry Purge:	4 min., 40 ml/min
Trap:	25 cm stainless steel (1/8 in. OD) packed with Carbopack B (10 cm) Carboxen 1000 (6 cm), and Carboxen 1001 (1 cm)
Desorption Time,Flow, Temperature:	4 min, 15 ml/min., 250 C
Bake out cycle:	8 min @ 260 C

CHROMATOGRAPHIC CONDITIONS:

Column:	Restek MXT 105M length, 0.28 mm id, 1.6 df (um)
Program:	Initial 50 C programmed at 8 C/min to 220 C and held 220 C for 7 minutes.
Injector and Transfer Temperatures:	200 C
Carrier Gas and Flow:	Helium, 15 ml/min

MASS SPECTROMETER CONDITIONS:

Electron Energy:	70 V
Mass Range:	35 to 300
Scan Rate:	1.5 seconds

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
PROJECT AND REPORT FORM

Chemist Reviewing Data: William J. Andrade, Ph.D.

Method Modifications: None

Limitations of Data: None

Laboratory Blank Problems: None

Instrument Performance Problems: None

Surrogate or Spike Recovery Problems: None

Additional Comments:

In the initial calibration, Bromoform, 1,2-dibromo, 3 chloropropane were outside of the acceptance criteria. Neither compound was detected in the samples.

In the continuing calibration TCE did not meet criteria. TCE was not found in the samples.

MATRIX SPIKE DUPLICATE ANALYSIS

FACILITY SAMPLED: Bates Mill
SAMPLE NUMBER: 07774
FILE NAME(S): 03198E12 & 031986E13
DATE OF ANALYSIS: 03/19/98

ACCURACY

COMPOUND	AVERAGE % RECOVERY	ACCEPTABLE RANGE[2]
1,1 Dichloroethylene	117	39-151
Chloroform	105	44-143
1,2 Dichloroethane	93	45-143
1,1,1 Trichloroethane	102	49-158
Carbon Tetrachloride	75	62-139
Bromodichloromethane	85	49-130
Trichloroethylene	85	41-139
Benzene	98	51-144
Dibromochloromethane	69	32-141
Bromoform	63	28-132
1,4 Dichlorobenzene	89	68-121
Vinyl chloride	108	D-181

PRECISION

Compound	#1 RECOVERY	#2 RECOVERY	RPD	ACCEPTABLE RANGE
1,1 Dichloroethylene	113	121	7	0-29
Chloroform	106	104	2	0-12
1,2 Dichloroethane	94	92	2	0-30
1,1,1 Trichloroethane	101	104	3	0-32
Carbon Tetrachloride	86	64	28	0-28
Bromodichloromethane	82	88	7	0-32
Trichloroethylene	80	90	12	0-28
Benzene	97	100	3	0-26
Dibromochloromethane	68	70	3	0-42
Bromoform	60	66	10	0-44
1,4 Dichorobenzene	91	87	4	0-19
Vinyl chloride	103	114	10	0-30

[1]=out of range
[2]=quality control acceptance criteria as per laboratory

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: Lab Blank
FILE NAME(S): 03198E4
DATE OF ANALYSIS: 03/18/98

DILUTION FACTOR(S): 1

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppb Conc. (ug/L)	Reporting Limits (ug/L)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	5.00	
74-83-9	34413	Bromomethane	ND	5.00	
75-01-4	39175	Vinyl Chloride	ND	5.00	
75-00-3	34311	Chloroethane	ND	5.00	
75-09-2	34423	Methylene Chloride	ND	5.00	
75-69-4	34488	Trichlorofluoromethane	ND	5.00	
75-35-4	34501	1,1-Dichloroethylene	ND	5.00	
75-34-3	34496	1,1-Dichloroethane	ND	5.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	5.00	
67-66-3	32106	Chloroform	ND	5.00	
107-06-2	34531	1,2-Dichloroethane	ND	5.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	5.00	
56-23-5	32102	Carbon Tetrachloride	ND	5.00	
75-27-4	32101	Bromodichloromethane	ND	5.00	
78-87-5	34541	1,2-Dichloropropane	ND	5.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	5.00	
79-01-6	39180	Trichloroethylene	ND	5.00	
124-48-1	32105	Dibromochloromethane	ND	5.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	5.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	5.00	
71-43-2	34030	Benzene	ND	5.00	
75-25-2	32104	Bromoform	ND	5.00	
127-18-4	34475	Tetrachloroethylene	ND	5.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	5.00	
108-88-3	34010	Toluene	ND	5.00	
108-90-7	34301	Chlorobenzene	ND	5.00	
100-41-4	34371	Ethylbenzene	ND	5.00	
		Dichlorobenzene isomers	ND	5.00	
		1,1,2-Trichloro-1,2,2 trifluoroethane	ND	5.00	
67-64-1	81552	Acetone	ND	10.00	
75-15-0	77041	Carbon Disulfide	ND	15.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: Lab Blank
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppb Conc. (ug/L)	Reporting Limits (ug/L)	Comments
78-93-3	81595	2-Butanone(MEK)	ND	20.00	
591-10-6	77103	2-Hexanone	ND	3.00	
108-10-1	81596	4-Methyl-2-Pentanone (MIBK)	ND	3.00	
100-42-5	81708	Styrene	ND	5.00	
133-02-7	81551	Xylenes (total)	ND	5.00	
		1,2-Dibromoethane (EDB)	ND	5.00	
		Tetrahydrofuran	ND	35.00	
		Ethyl ether	ND	15.00	
		Isopropylbenzene	ND	5.00	
		n-Propylbenzene	ND	5.00	
		1,3,5-Trimethylbenzene	ND	5.00	
		1,2,4-Trimethylbenzene	ND	5.00	
		sec-Butylbenzene	ND	5.00	
		para-Isopropyltoluene	ND	5.00	
		n-Butylbenzene	ND	5.00	
		Naphthalene	ND	5.00	

Other Compounds Tentatively Identified

None Detected

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	116	56-156
Toluene,d8	97	70-121
1,4-Bromofluorobenzene	91	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
I=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: Method Blank
FILE NAME(S): 03198E5
DATE OF ANALYSIS: 03/18/98

DILUTION FACTOR(S): 50
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/g)	Reporting Limits (ug/g)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	26.00	
74-83-9	34413	Bromomethane	ND	26.00	
75-01-4	39175	Vinyl Chloride	ND	26.00	
75-00-3	34311	Chloroethane	ND	26.00	
75-09-2	34423	Methylene Chloride	ND	26.00	
75-69-4	34488	Trichlorofluoromethane	ND	26.00	
75-35-4	34501	1,1-Dichloroethylene	ND	26.00	
75-34-3	34496	1,1-Dichloroethane	ND	26.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	26.00	
67-66-3	32106	Chloroform	ND	26.00	
107-06-2	34531	1,2-Dichloroethane	ND	26.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	26.00	
56-23-5	32102	Carbon Tetrachloride	ND	26.00	
75-27-4	32101	Bromodichloromethane	ND	26.00	
78-87-5	34541	1,2-Dichloropropane	ND	26.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	26.00	
79-01-6	39180	Trichloroethylene	ND	26.00	
124-48-1	32105	Dibromochloromethane	ND	26.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	26.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	26.00	
71-43-2	34030	Benzene	ND	26.00	
75-25-2	32104	Bromoform	ND	26.00	
127-18-4	34475	Tetrachloroethylene	ND	26.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	26.00	
108-88-3	34010	Toluene	ND	26.00	
108-90-7	34301	Chlorobenzene	ND	26.00	
100-41-4	34371	Ethylbenzene	ND	26.00	
		Dichlorobenzene isomers	ND	26.00	
		1,1,2-Trichloro-1,2,2 trifluoroethane	ND	26.00	
67-64-1	81552	Acetone	ND	52.00	
75-15-0	77041	Carbon Disulfide	ND	78.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: Method Blank
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/g)	Reporting Limits (ug/g)	Comments
78-93-3	81595	2-Butanone(MEK)	ND	104.00	
591-10-6	77103	2-Hexanone	ND	15.60	
108-10-1	81596	4-Methyl-2-Pentanone (MIBK)	ND	15.60	
100-42-5	81708	Styrene	ND	26.00	
133-02-7	81551	Xylenes (total)	ND	26.00	
		1,2-Dibromoethane (EDB)	ND	26.00	
		Tetrahydrofuran	ND	182.00	
		Ethyl ether	ND	78.00	
		Isoprppylbenzene	ND	26.00	
		n-Propylbenzene	ND	26.00	
		1,3,5-Trimethylbenzene	ND	26.00	
		1,2,4-Trimethylbenzene	ND	26.00	
		sec-Butylbenzene	ND	26.00	
		para-Isopropyltoluene	ND	26.00	
		n-Butylbenzene	ND	26.00	
		Naphthalene	ND	26.00	

Other Compounds Tentatively Identified
None Detected

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	113	56-156
Toluene,d8	99	70-121
1,4-Bromofluorobenzene	92	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
ı=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID: 07768
FILE NAME(S): 03198E7
DATE OF COLLECTION: 03/11/98
DATE OF ANALYSIS: 03/18/98

SAMPLE WEIGHT: 0.100 g
DILUTION FACTOR(S): 50
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	25.00	
74-83-9	34413	Bromomethane	ND	25.00	
75-01-4	39175	Vinyl Chloride	ND	25.00	
75-00-3	34311	Chloroethane	ND	25.00	
75-09-2	34423	Methylene Chloride	ND	25.00	
75-69-4	34488	Trichlorofluoromethane	ND	25.00	
75-35-4	34501	1,1-Dichloroethylene	ND	25.00	
75-34-3	34496	1,1-Dichloroethane	ND	25.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	25.00	
67-66-3	32106	Chloroform	ND	25.00	
107-06-2	34531	1,2-Dichloroethane	ND	25.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	25.00	
56-23-5	32102	Carbon Tetrachloride	ND	25.00	
75-27-4	32101	Bromodichloromethane	ND	25.00	
78-87-5	34541	1,2-Dichloropropane	ND	25.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	25.00	
79-01-6	39180	Trichloroethylene	ND	25.00	
124-48-1	32105	Dibromochloromethane	ND	25.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	25.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	25.00	
71-43-2	34030	Benzene	ND	25.00	
75-25-2	32104	Bromoform	ND	25.00	
127-18-4	34475	Tetrachloroethylene	ND	25.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	25.00	
108-88-3	34010	Toluene	ND	25.00	
108-90-7	34301	Chlorobenzene	ND	25.00	
100-41-4	34371	Ethylbenzene	ND	25.00	
		Dichlorobenzene isomers	ND	25.00	
		1,2,2-Trichloro-1,2,2 trifluoroethane	ND	25.00	
67-64-1	81552	Acetone	ND	50.00	
75-15-0	77041	Carbon Disulfide	ND	75.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07768
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	100.00	
591-10-6	77103	2-Hexanone	ND	15.00	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	15.00	
100-42-5	81708	Styrene	ND	25.00	
133-02-7	81551	Xylenes (total)	ND	25.00	
		1,2-Dibromoethane (EDB)	ND	25.00	
		Tetrahydrofuran	ND	175.00	
		Ethyl ether	ND	75.00	
		Isopropylbenzene	ND	25.00	
		n-Propylbenzene	ND	25.00	
		1,3,5-Trimethylbenzene	ND	25.00	
		1,2,4-Trimethylbenzene	ND	25.00	
		sec-Butylbenzene	ND	25.00	
		para-Isopropyltoluene	ND	25.00	
		n-Butylbenzene	ND	25.00	
		Naphthalene	ND	25.00	

Other Compounds Tentatively Identified

None Detected

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	108	56-156
Toluene,d8	97	70-121
1,4-Bromofluorobenzene	105	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
I=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID: 07774
FILE NAME(S): 03198E8
DATE OF COLLECTION: 03/11/98
DATE OF ANALYSIS: 03/18/98

SAMPLE WEIGHT: 0.089 g
DILUTION FACTOR(S): 50
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	28.00	
74-83-9	34413	Bromomethane	ND	28.00	
75-01-4	39175	Vinyl Chloride	ND	28.00	
75-00-3	34311	Chloroethane	ND	28.00	
75-09-2	34423	Methylene Chloride	ND	28.00	
75-69-4	34488	Trichlorofluoromethane	ND	28.00	
75-35-4	34501	1,1-Dichloroethylene	ND	28.00	
75-34-3	34496	1,1-Dichloroethane	ND	28.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	28.00	
67-66-3	32106	Chloroform	ND	28.00	
107-06-2	34531	1,2-Dichloroethane	ND	28.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	28.00	
56-23-5	32102	Carbon Tetrachloride	ND	28.00	
75-27-4	32101	Bromodichloromethane	ND	28.00	
78-87-5	34541	1,2-Dichloropropane	ND	28.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	28.00	
79-01-6	39180	Trichloroethylene	ND	28.00	
124-48-1	32105	Dibromochloromethane	ND	28.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	28.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	28.00	
71-43-2	34030	Benzene	ND	28.00	
75-25-2	32104	Bromoform	ND	28.00	
127-18-4	34475	Tetrachloroethylene	ND	28.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	28.00	
108-88-3	34010	Toluene	ND	28.00	
108-90-7	34301	Chlorobenzene	ND	28.00	
100-41-4	34371	Ethylbenzene	ND	28.00	
		Dichlorobenzene isomers	ND	28.00	
		1,2,2-Trichloro-1,2,2 trifluoroethane	ND	28.00	
67-64-1	81552	Acetone	ND	56.00	
75-15-0	77041	Carbon Disulfide	ND	84.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07774
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	112.00	
591-10-6	77103	2-Hexanone	ND	16.80	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	16.80	
100-42-5	81708	Styrene	ND	28.00	
133-02-7	81551	Xylenes (total)	ND	28.00	
		1,2-Dibromoethane (EDB)	ND	28.00	
		Tetrahydrofuran	ND	196.00	
		Ethyl ether	ND	84.00	
		Isopropylbenzene	ND	28.00	
		n-Propylbenzene	ND	28.00	
		1,3,5-Trimethylbenzene	ND	28.00	
		1,2,4-Trimethylbenzene	ND	28.00	
		sec-Butylbenzene	ND	28.00	
		para-Isopropyltoluene	ND	28.00	
		n-Butylbenzene	ND	28.00	
		Naphthalene	ND	28.00	

Other Compounds Tentatively Identified

2-Ethyl-4-methyl-1 Pentanol
2-Ethyl-1-Hexanol

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	117	56-156
Toluene,d8	98	70-121
1,4-Bromofluorobenzene	96	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
ı=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID: 07776
FILE NAME(S): 03198E9
DATE OF COLLECTION: 03/11/98
DATE OF ANALYSIS: 03/19/98

SAMPLE WEIGHT: 0.099 g
DILUTION FACTOR(S): 500
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	250.00	
74-83-9	34413	Bromomethane	ND	250.00	
75-01-4	39175	Vinyl Chloride	ND	250.00	
75-00-3	34311	Chloroethane	ND	250.00	
75-09-2	34423	Methylene Chloride	ND	250.00	
75-69-4	34488	Trichlorofluoromethane	ND	250.00	
75-35-4	34501	1,1-Dichloroethylene	ND	250.00	
75-34-3	34496	1,1-Dichloroethane	ND	250.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	250.00	
67-66-3	32106	Chloroform	ND	250.00	
107-06-2	34531	1,2-Dichloroethane	ND	250.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	250.00	
56-23-5	32102	Carbon Tetrachloride	ND	250.00	
75-27-4	32101	Bromodichloromethane	ND	250.00	
78-87-5	34541	1,2-Dichloropropane	ND	250.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	250.00	
79-01-6	39180	Trichloroethylene	ND	250.00	
124-48-1	32105	Dibromochloromethane	ND	250.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	250.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	250.00	
71-43-2	34030	Benzene	ND	250.00	
75-25-2	32104	Bromoform	ND	250.00	
127-18-4	34475	Tetrachloroethylene	ND	250.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	250.00	
108-88-3	34010	Toluene	ND	250.00	
108-90-7	34301	Chlorobenzene	ND	250.00	
100-41-4	**34371**	**Ethylbenzene**	**60**	**250.00**	**L**
		Dichlorobenzene isomers	ND	250.00	
		1,2,2-Trichloro-1.2,2 trifluoroethane	ND	250.00	
67-64-1	81552	Acetone	ND	500.00	
75-15-0	77041	Carbon Disulfide	ND	750.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07776
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	1000.00	
591-10-6	77103	2-Hexanone	ND	150.00	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	150.00	
100-42-5	81708	Styrene	ND	250.00	
133-02-7	**81551**	**Xylenes (total)**	**600**	**250.00**	
		1,2-Dibromoethane (EDB)	ND	250.00	
		Tetrahydrofuran	ND	1750.00	
		Ethyl ether	ND	750.00	
		Isopropylbenzene	**50**	**250.00**	**L**
		n-Propylbenzene	ND	250.00	
		1,3,5-Trimethylbenzene	**870**	**250.00**	
		1,2,4-Trimethylbenzene	**1500**	**250.00**	
		sec-Butylbenzene	**100**	**250.00**	**L**
		para-Isopropyltoluene	**260**	**250.00**	
		n-Butylbenzene	ND	250.00	
		Naphthalene	**10,000**	**250.00**	**E**

Other Compounds
Tentatively Identified

2-Ethyl, 1-Hexanol
1,2,3,4-tetramethyl Benzene
1,2,3,5-tetramethyl Benzene
1,4 diethyl-2-methyl Benzene, Isomers
Pentamethyl Benzene
1,2,3,4-tetrahydro-5-m-Naphthalene
2-methyl Naphthalene
1-methyl Naphthalene
1,5 dimethyl Naphthalene

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	ND	56-156
Toluene,d8	ND	70-121
1,4-Bromofluorobenzene	ND	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
I=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID: 07779
FILE NAME(S): 03198E10
DATE OF COLLECTION: 03/11/98
DATE OF ANALYSIS: 03/19/98

SAMPLE WEIGHT: 0.121 g
DILUTION FACTOR(S): 50
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	21.00	
74-83-9	34413	Bromomethane	ND	21.00	
75-01-4	39175	Vinyl Chloride	ND	21.00	
75-00-3	34311	Chloroethane	ND	21.00	
75-09-2	34423	Methylene Chloride	ND	21.00	
75-69-4	34488	Trichlorofluoromethane	ND	21.00	
75-35-4	34501	1,1-Dichloroethylene	ND	21.00	
75-34-3	34496	1,1-Dichloroethane	ND	21.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	21.00	
67-66-3	32106	Chloroform	ND	21.00	
107-06-2	34531	1,2-Dichloroethane	ND	21.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	21.00	
56-23-5	32102	Carbon Tetrachloride	ND	21.00	
75-27-4	32101	Bromodichloromethane	ND	21.00	
78-87-5	34541	1,2-Dichloropropane	ND	21.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	21.00	
79-01-6	39180	Trichloroethylene	ND	21.00	
124-48-1	32105	Dibromochloromethane	ND	21.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	21.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	21.00	
71-43-2	34030	Benzene	ND	21.00	
75-25-2	32104	Bromoform	ND	21.00	
127-18-4	34475	Tetrachloroethylene	ND	21.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	21.00	
108-88-3	34010	Toluene	ND	21.00	
108-90-7	34301	Chlorobenzene	ND	21.00	
100-41-4	34371	Ethylbenzene	ND	21.00	
		Dichlorobenzene isomers	ND	21.00	
		1,2,2-Trichloro-1,2,2 trifluoroethane	ND	21.00	
67-64-1	81552	Acetone	ND	42.00	
75-15-0	77041	Carbon Disulfide	ND	63.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07779
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	84.00	
591-10-6	77103	2-Hexanone	ND	12.60	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	12.60	
100-42-5	81708	Styrene	ND	21.00	
133-02-7	81551	Xylenes (total)	ND	21.00	
		1,2-Dibromoethane (EDB)	ND	21.00	
		Tetrahydrofuran	ND	147.00	
		Ethyl ether	ND	63.00	
		Isopropylbenzene	ND	21.00	
		n-Propylbenzene	ND	21.00	
		1,3,5-Trimethylbenzene	ND	21.00	
		1,2,4-Trimethylbenzene	ND	21.00	
		sec-Butylbenzene	ND	21.00	
		para-Isopropyltoluene	ND	21.00	
		n-Butylbenzene	ND	21.00	
		Naphthalene	**10**	**21.00**	**L**

Other Compounds
Tentatively Identified

2-Ethyl, 1-Hexanol
1-methyl Naphthalene
2-Ethyl Naphthalene
1,5-dimethyl Naphthalene
1,2,3,4-tetrahydro-1,6-Naphthalene
2,3-dimethyl Naphthalene

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	110	56-156
Toluene,d8	102	70-121
1,4-Bromofluorobenzene	102	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
1=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID: 07780
FILE NAME(S): 03198E11
DATE OF COLLECTION: 03/11/98
DATE OF ANALYSIS: 03/19/98

SAMPLE WEIGHT: 0.115 g
DILUTION FACTOR(S): 50
PRESERVATIVE: Cool to 4 C

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	22.00	
74-83-9	34413	Bromomethane	ND	22.00	
75-01-4	39175	Vinyl Chloride	ND	22.00	
75-00-3	34311	Chloroethane	ND	22.00	
75-09-2	34423	Methylene Chloride	ND	22.00	
75-69-4	34488	Trichlorofluoromethane	ND	22.00	
75-35-4	34501	1,1-Dichloroethylene	ND	22.00	
75-34-3	34496	1,1-Dichloroethane	ND	22.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	22.00	
67-66-3	32106	Chloroform	ND	22.00	
107-06-2	34531	1,2-Dichloroethane	ND	22.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	22.00	
56-23-5	32102	Carbon Tetrachloride	ND	22.00	
75-27-4	32101	Bromodichloromethane	ND	22.00	
78-87-5	34541	1,2-Dichloropropane	ND	22.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	22.00	
79-01-6	39180	Trichloroethylene	ND	22.00	
124-48-1	32105	Dibromochloromethane	ND	22.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	22.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	22.00	
71-43-2	34030	Benzene	ND	22.00	
75-25-2	32104	Bromoform	ND	22.00	
127-18-4	34475	Tetrachloroethylene	ND	22.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	22.00	
108-88-3	**34010**	**Toluene**	**20**	**22.00**	L
108-90-7	34301	Chlorobenzene	ND	22.00	
100-41-4	34371	Ethylbenzene	ND	22.00	
		Dichlorobenzene isomers	ND	22.00	
		1,2,2-Trichloro-1,2,2 trifluoroethane	ND	22.00	
67-64-1	**81552**	**Acetone**	**400**	**44.00**	
75-15-0	77041	Carbon Disulfide	ND	66.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07780
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppm Conc. (ug/gm)	Reporting Limits (ug/gm)	Comments
78-93-3	81595	2-Butanone (MEK)	ND	88.00	
591-10-6	77103	2-Hexanone	ND	13.20	
108-10-1	81596	4-Methyl-2-Pentanone(MIBK)	ND	13.20	
100-42-5	81708	Styrene	ND	22.00	
133-02-7	81551	Xylenes (total)	ND	22.00	
		1,2-Dibromoethane (EDB)	ND	22.00	
		Tetrahydrofuran	ND	154.00	
		Ethyl ether	ND	66.00	
		Isopropylbenzene	ND	22.00	
		n-Propylbenzene	ND	22.00	
		1,3,5-Trimethylbenzene	ND	22.00	
		1,2,4-Trimethylbenzene	ND	22.00	
		sec-Butylbenzene	ND	22.00	
		para-Isopropyltoluene	**190**	**22.00**	
		n-Butylbenzene	ND	22.00	
		Naphthalene	ND	22.00	

Other Compounds Tentatively Identified

Isopropyl alcohol
1-methyl-4-Cyclohexene
1,3,3-t Bicyclo[2.2.1]heptan-2-one
Camphor
1-methoxy-4(2-propenyl)benzene
1,3,3,-tr Bicyclo[2.2.1]heptan-2-ol
Cyclohexane methanol, alpha

Sample Recoveries for Surrogate Compounds:	Observed Recoveries	Acceptable Range
1,2-Dichloroethane,d4	112	56-156
Toluene,d8	96	70-121
1,4-Bromofluorobenzene	101	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
ı=out of range

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07755 - Trip Blank
FILE NAME(S): 03198E6
DATE OF COLLECTION: 03/9/98
DATE OF ANALYSIS: 03/18/98

DILUTION FACTOR(S): 1
PRESERVATIVE: pH < 2

SAMPLE RESULTS:

CAS NO.	STORET NO.	Compound	ppb Conc. (ug/L)	Reporting Limits (ug/L)	Comments
		TARGET COMPOUNDS			
74-87-3	34418	Chloromethane	ND	5.00	
74-83-9	34413	Bromomethane	ND	5.00	
75-01-4	39175	Vinyl Chloride	ND	5.00	
75-00-3	34311	Chloroethane	ND	5.00	
75-09-2	34423	Methylene Chloride	ND	5.00	
75-69-4	34488	Trichlorofluoromethane	ND	5.00	
75-35-4	34501	1,1-Dichloroethylene	ND	5.00	
75-34-3	34496	1,1-Dichloroethane	ND	5.00	
156-60-5	34546	1,2-Dichloroethylene isomers	ND	5.00	
67-66-3	32106	Chloroform	ND	5.00	
107-06-2	34531	1,2-Dichlorcethane	ND	5.00	
71-55-6	34506	1,1,1-Trichloroethane	ND	5.00	
56-23-5	32102	Carbon Tetrachloride	ND	5.00	
75-27-4	32101	Bromodichloromethane	ND	5.00	
78-87-5	34541	1,2-Dichloropropane	ND	5.00	
10061-02-6	34699	t-1,3-Dichloropropene	ND	5.00	
79-01-6	39180	Trichloroethylene	ND	5.00	
124-48-1	32105	Dibromochloromethane	ND	5.00	
10061-01-5	34704	c-1,3-Dichloropropene and/or 1,1-Dichloropropene	ND	5.00	
79-00-5	34511	1,1,2-Trichloroethane	ND	5.00	
71-43-2	34030	Benzene	ND	5.00	
75-25-2	32104	Bromoform	ND	5.00	
127-18-4	34475	Tetrachloroethylene	ND	5.00	
79-34-5	34516	1,1,2,2-Tetrachloroethane	ND	5.00	
108-88-3	34010	Toluene	ND	5.00	
108-90-7	34301	Chlorobenzene	ND	5.00	
100-41-4	34371	Ethylbenzene	ND	5.00	
		Dichlorobenzene isomers	ND	5.00	
		1,1,2-Trichloro-1,2,2 trifluoroethane	ND	5.00	
67-64-1	**81552**	**Acetone**	**10**	**10.00**	L
75-15-0	77041	Carbon Disulfide	ND	15.00	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS PURGEABLE ORGANIC ANALYSIS - DRUM

SAMPLE ID.: 07755 - Trip Blank
Sample Results Continued:

CAS NO.	STORET NO.	Compound	ppb Conc. (ug/L)	Reporting Levels (ug/L)	Comments
78-93-3	81595	2-Butanone(MEK)	ND	20.00	
591-10-6	77103	2-Hexanone	ND	3.00	
108-10-1	81596	4-Methyl-2-Pentanone (MIBK)	ND	3.00	
100-42-5	81708	Styrene	ND	5.00	
133-02-7	81551	Xylenes (total)	ND	5.00	
		1,2-Dibromoethane (EDB)	ND	5.00	
		Tetrahydrofuran	ND	35.00	
		Ethyl ether	ND	15.00	
		Isopropylbenzene	ND	5.00	
		n-Propylbenzene	ND	5.00	
		1,3,5-Trimethylbenzene	ND	5.00	
		1,2,4-Trimethylbenzene	ND	5.00	
		sec-Butylbenzene	ND	5.00	
		para-Isopropyltoluene	ND	5.00	
		n-Butylbenzene	ND	5.00	
		Naphthalene	ND	5.00	
		Other Compounds Tentatively Identified			

Sample Recoveries for Surrogate Compounds:		Observed Recoveries	Acceptable Range
	1,2-Dichloroethane,d4	117	56-156
	Toluene,d8	104	70-121
	1,4-Bromofluorobenzene	99	76-125

Notes:

ND=none detected above the detection level
RL=Reporting Limit
J=approximate
NA=not available due to dilution or interference
E=estimated value exceeds the calibration range
L=estimated value is below the calibration range
B=analyte is associated with lab blank
ı=out of range

APPENDIX R

Semivolatile Organic Compound Analytical Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02173-3185

DATE: April 1, 1998

SUBJ: Gas Chromatography-Mass Spectrometry Analysis of Extractable Organics in Drum Samples - **BATES MILL**

FROM: Dick Siscanaw RS, Chemistry Section

THRU: Dr. William J. Andrade, Advanced Analytical Chemistry Specialist

TO: Paul Groulx WJA 4/6/98

PROJECT NUMBER: 98175

ANALYTICAL PROCEDURE:

All samples were received and logged in by the laboratory according to the SOP for Sample Log-in (EIA-ADMLOGN1.SOP, 7/97).

EPA Region I Procedure: High Level BNA Analyses for Drum and/or Pure Product Samples, BNADRML2.SOP. The modules used for this procedure were: GC/FID Screening of BNA Extracts, BNASCRE4.BNA, Gas Chromatography/Mass Spectrometry Analysis of Semivolatile Organics, BNAENVI1.MOD, Quality Control Module, QC3.MOD.

The analytical support for this report was performed by ESAT contractors.

Date(s) Samples Received by the Laboratory: 03/12/98

Date Analysis Started: 03/13/98

cc:

File: J:\CHEMSTRY\REPORTS\BNA\98175DR.BNA

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

QUALITY CONTROL:

1. A laboratory blank was analyzed before the sample analysis.

2. The water samples were spiked with 100 ug of base/neutral compounds and 200 ug of acid surrogate compounds. The results for the surrogate recoveries are reported out for each sample.

3. A control sample,LCS, was spiked with 100 ug of base/neutral and 200 ug of acid matrix spike compounds. The results for the analyses are listed below.

Compound	Rec. (%)	QC Range (%)	Comments
Acenaphthene	59	46-118	
4-Chloro-3-methylphenol	65	23-97	
2-Chlorophenol	120	27-123	
1,4-Dichlorobenzene	41	36-97	
2,4-Dinitrotoluene	64	24-96	
4-Nitrophenol	70	10-80	
N-Nitrosodi-n-propylamine	76	41-116	
Pentachlorophenol	65	9-103	
Phenol	110	12-110	
Pyrene	62	26-127	
1,2,4-Trichlorobenzene	44	39-98	

4. Duplicate analyses was done on sample 07776.

NOTE: Phthalates (1,2-Benzenedicarboxylic esters) and adipates (hexanedioic esters) are common method contaminants. Values at the detection levels are most likely due to method contamination.

Samples Analyzed: LCS, BLANK 1, BLANK 2, 07768, 07776, 07779

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

ANALYTICAL PARAMETERS

INSTRUMENTS:

Hewlett Packard 5890 Gas Chromatograph
Hewlett Packard 5987 Gas Chromatograph-Mass Spectrometer

GC/FID Screening Conditions:

Gas:	Hydrogen
Capillary Column:	DB-1, 30m, 25mm ID, 0.25 micron film thickness
Injection Mode:	Splitless
Temperature Program:	Isothermal for 3 min at 40°C, programmed at 15°C/min to 320°C for 3 min

GC-MS Conditions:

Gas:	Helium
Capillary Column:	DB-5, 60m, 25mm ID, 0.25 micron film thickness
Injection Mode:	Splitless
Temperature Program:	Isothermal for 4 min at 40°C, programmed at 7°C min to 300°C
Injector, Transfer Temperatures:	290°C, 300°C
Electron Energy:	70 V
Mass Range:	35-550
Scan Rate:	0.9 seconds

US ENVIRONMENTAL PROTECTION AGENCY
60 Westview Street
Lexington, MA 02173

Chemist who reviewed data: Dick Siscanaw

Holding times meet (Y/N): Yes
Extraction (Water - 7 days, Soils - 14 days)
Analytical (40 days after extraction)

Method modifications: None

Limitations of data: None

Laboratory blank problems: None

Instrument performance problems: None

Surrogate and spike recovery problems: Sample 07768 could not be extracted by the routine liquid/liquid extraction because of the emulsion. The sample was transferred to a continous extractor for the analyses. Two of the suurrogates were low probably because of the extra sample preparation and sample matrix.

There was not spike for 07776 because it was a direct dilution.

Additional comments: All the samples were liquid. Samples 0768 and 07779 were aqueous and 07776 was an oily liquid.

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 2 (for 07768 & 07779) Matrix: Drum - Aqueous
DATE OF COLLECTION: Not Applicable Sample pH: NA
DATE OF EXTRACTION: 03/17/98 Conc. Final Vol. 1000 uL
DATE OF ANALYSIS: 03/17/98 Dilution Factor: 1.0
VOLUME EXTRACTED: 40 mL Report Factor: 25.0

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
	Priority Pollutants			
83-32-9	Acenaphthene	ND	160	
208-96-8	Acenaphthylene	ND	160	
120-12-7	Anthracene	ND	160	
309-00-2	Aldrin	ND	160	
56-55-3	Benzo(a)anthracene	ND	160	
205-99-2	Benzo(b)fluoranthene	ND	160	
207-08-9	Benzo(k)fluoranthene	ND	160	
50-32-8	Benzo(a)pyrene	ND	160	
191-24-2	Benzo(ghi)perylene	ND	160	
85-68-7	Butyl Benzyl Phthalate	ND	160	
319-85-7	beta-BHC	ND	160	
319-86-8	delta-BHC	ND	160	
111-44-4	Bis(2-chloroethyl)ether	ND	160	
111-91-1	Bis(2-chloroethoxy)methane	ND	160	
117-81-7	**Bis(2-ethylhexyl)phthalate**	**150**	**160**	**L**
108-60-1	Bis(2-chloroisopropyl)ether	ND	160	
101-55-3	4-Bromophenylphenyl ether	ND	160	
86-74-8	Carbazole	ND	160	
59-50-7	4-Chloro-3-methylphenol	ND	310	
91-58-7	2-Chloronaphthalene	ND	160	
95-57-8	2-Chlorophenol	ND	310	
7005-72-3	4-Chlorophenylphenyl ether	ND	160	
218-01-9	Chrysene	ND	160	
72-54-8	4,4'-DDD	ND	160	
72-55-9	4,4'-DDE	ND	160	
50-29-3	4,4'-DDT	ND	160	
53-70-3	Dibenzo(a,h)anthracene	ND	160	
84-74-2	**Di-n-butylphthalate**	**25**	**160**	**L**
541-73-1	1,3-Dichlorobenzene	ND	160	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 2 (for 07768 & 07779)
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
95-50-1	1,2-Dichlorobenzene	ND	160	
106-46-7	1,4-Dichlorobenzene	ND	160	
91-94-1	3,3'-Dichlorobenzidine	ND	160	
120-83-2	2,4-Dichlorophenol	ND	310	
60-57-1	Dieldrin	ND	160	
84-66-2	Diethylphthalate	ND	160	
105-67-9	2,4-Dimethylphenol	ND	310	
131-11-3	Dimethylphthalate	ND	160	
534-52-1	4,6-Dinitro-2-methyl phenol	ND	310	
51-28-5	2,4-Dinitrophenol	ND	310	
121-14-2	2,4-Dinitrotoluene	ND	160	
606-20-2	2,6-Dinitrotoluene	ND	160	
117-84-0	Di-n-octylphthalate	ND	160	
206-44-0	Fluoranthene	ND	160	
86-73-7	Fluorene	ND	160	
76-44-8	Heptachlor	ND	160	
1024-57-3	Heptachlor epoxide	ND	160	
118-74-1	Hexachlorobenzene	ND	160	
87-68-3	Hexachlorobutadiene	ND	160	
77-47-4	Hexachlorocyclopentadiene	ND	160	
67-72-1	Hexachloroethane	ND	160	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	160	
78-59-1	Isophorone	ND	160	
91-20-3	Naphthalene	ND	160	
98-95-3	Nitrobenzene	ND	160	
88-75-5	2-Nitrophenol	ND	310	
100-02-7	4-Nitrophenol	ND	310	
86-30-3	N-Nitrosodiphenylamine	ND	160	
621-64-7	N-Nitrosodi-n-propylamine	ND	160	
87-86-5	Pentachlorophenol	ND	310	
85-01-8	Phenanthrene	ND	160	
108-95-2	Phenol	ND	310	
129-00-0	Pyrene	ND	160	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 2 (for 07768 & 07779)
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	160	
88-06-2	2,4,6-Trichlorophenol	ND	310	
	Hazardous Substances			
65-53-3	Aniline	ND	160	
65-85-0	Benzoic Acid	ND	310	
100-51-6	Benzyl Alcohol	ND	160	
106-47-8	4-Chloroaniline	ND	160	
132-64-9	Dibenzofuran	ND	160	
91-57-6	2-Methylnaphthalene	ND	160	
95-48-7	2-Methylphenol	ND	160	
106-44-5	4-Methylphenol	ND	160	
88-74-4	2-Nitroaniline	ND	160	
99-09-2	3-Nitroaniline	ND	160	
100-01-6	4-Nitroaniline	ND	160	
95-95-4	2,4,5-Trichlorophenol	ND	160	
	Other Compounds Quantitated			
	Diphenylhydrazine (azobenzene)	ND	160	

Tentatively Identified Compounds	Est. Conc. (ug/L)	
C26 Hydrocarbon	125	J
C26 Hydrocarbon	100	J

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 2 (for 07768 & 07779)
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	69	21-110
Phenol,d5	73	10-110
Nitrobenzene,d5	71	35-114
Fluorobiphenyl	58	43-116
2,4,6-Tribromophenol	76	10-123
p-Terphenyl,d14	81	33-141
2-Chlorophenol-d4	70	33-110
1,2-Dichlorobenzene-d4	52	16-110

Notes:

RL = Reporting limit
ND = None detected
~ = Approximate
< = Less than
> = Greater than
NA = Not available, due to sample dilution or interference
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank extract for the common contaminants (phthalates and adipates), or less than five times for the remaining contaminants.
C = This compound is confirmation for the pesticide analyses. See the pesticide report for the quantitation.
A = Suspected aldolcondensation product
J = Estimated value

FACILITY SAMPLED: BATES MILL
US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07768
DATE OF COLLECTION: 03/10/98
DATE OF EXTRACTION: 03/17/98
DATE OF ANALYSIS: 03/17/98
VOLUME EXTRACTED: 37 mL

Matrix: Drum - Aqueous
Sample pH: 0
Conc. Final Vol. 1000 uL
Dilution Factor: 1.0
Report Factor: 27.0

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
	Priority Pollutants			
83-32-9	Acenaphthene	ND	170	
208-96-8	Acenaphthylene	ND	170	
120-12-7	Anthracene	ND	170	
309-00-2	Aldrin	ND	170	
56-55-3	Benzo(a)anthracene	ND	170	
205-99-2	Benzo(b)fluoranthene	ND	170	
207-08-9	Benzo(k)fluoranthene	ND	170	
50-32-8	Benzo(a)pyrene	ND	170	
191-24-2	Benzo(ghi)perylene	ND	170	
85-68-7	Butyl Benzyl Phthalate	ND	170	
319-85-7	beta-BHC	ND	170	
319-86-8	delta-BHC	ND	170	
111-44-4	Bis(2-chloroethyl)ether	ND	170	
111-91-1	Bis(2-chloroethoxy)methane	ND	170	
117-81-7	**Bis(2-ethylhexyl)phthalate**	**140**	**170**	**L,B**
108-60-1	Bis(2-chloroisopropyl)ether	ND	170	
101-55-3	4-Bromophenylphenyl ether	ND	170	
86-74-8	Carbazole	ND	170	
59-50-7	4-Chloro-3-methylphenol	ND	330	
91-58-7	2-Chloronaphthalene	ND	170	
95-57-8	2-Chlorophenol	ND	330	
7005-72-3	4-Chlorophenylphenyl ether	ND	170	
218-01-9	Chrysene	ND	170	
72-54-8	4,4'-DDD	ND	170	
72-55-9	4,4'-DDE	ND	170	
50-29-3	4,4'-DDT	ND	170	
53-70-3	Dibenzo(a,h)anthracene	ND	170	
84-74-2	**Di-n-butylphthalate**	**48**	**170**	**L,B**
541-73-1	1,3-Dichlorobenzene	ND	170	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07768
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
95-50-1	1,2-Dichlorobenzene	ND	170	
106-46-7	1,4-Dichlorobenzene	ND	170	
91-94-1	3,3'-Dichlorobenzidine	ND	170	
120-83-2	2,4-Dichlorophenol	ND	330	
60-57-1	Dieldrin	ND	170	
84-66-2	**Diethylphthalate**	**33**	**170**	**L**
105-67-9	2,4-Dimethylphenol	ND	330	
131-11-3	Dimethylphthalate	ND	170	
534-52-1	4,6-Dinitro-2-methyl phenol	ND	330	
51-28-5	2,4-Dinitrophenol	ND	330	
121-14-2	2,4-Dinitrotoluene	ND	170	
606-20-2	2,6-Dinitrotoluene	ND	170	
117-84-0	Di-n-octylphthalate	ND	170	
206-44-0	Fluoranthene	ND	170	
86-73-7	Fluorene	ND	170	
76-44-8	Heptachlor	ND	170	
1024-57-3	Heptachlor epoxide	ND	170	
118-74-1	Hexachlorobenzene	ND	170	
87-68-3	Hexachlorobutadiene	ND	170	
77-47-4	Hexachlorocyclopentadiene	ND	170	
67-72-1	Hexachloroethane	ND	170	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	
78-59-1	Isophorone	ND	170	
91-20-3	Naphthalene	ND	170	
98-95-3	Nitrobenzene	ND	170	
88-75-5	2-Nitrophenol	ND	330	
100-02-7	4-Nitrophenol	ND	330	
86-30-3	N-Nitrosodiphenylamine	ND	170	
621-64-7	N-Nitrosodi-n-propylamine	ND	170	
87-86-5	Pentachlorophenol	ND	330	
85-01-8	Phenanthrene	ND	170	
108-95-2	Phenol	ND	330	
129-00-0	Pyrene	ND	170	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07768
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	170	
88-06-2	2,4,6-Trichlorophenol	ND	330	
	Hazardous Substances			
65-53-3	**Aniline**	**2200**	**170**	
65-85-0	Benzoic Acid	ND	330	
100-51-6	Benzyl Alcohol	ND	170	
106-47-8	4-Chloroaniline	ND	170	
132-64-9	Dibenzofuran	ND	170	
91-57-6	2-Methylnaphthalene	ND	170	
95-48-7	2-Methylphenol	ND	170	
106-44-5	4-Methylphenol	ND	170	
88-74-4	2-Nitroaniline	ND	170	
99-09-2	3-Nitroaniline	ND	170	
100-01-6	4-Nitroaniline	ND	170	
95-95-4	2,4,5-Trichlorophenol	ND	170	
	Other Compounds Quantitated			
	Diphenylhydrazine (azobenzene)	ND	170	

Tentatively Identified Compounds	Est. Conc. (ug/L)
Substituted Benzene	360
Unknown	10000
Phenyl Urea	380
Unknown	230
Unknown	710

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07768
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	43	21-110
Phenol,d5	49	10-110
Nitrobenzene,d5	44	35-114
Fluorobiphenyl	40*	43-116
2,4,6-Tribromophenol	50	10-123
p-Terphenyl,d14	15*	33-141
2-Chlorophenol-d4	47	33-110
1,2-Dichlorobenzene-d4	33	16-110

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07779 Matrix: Drum - Aqueous
DATE OF COLLECTION: 03/11/98 Sample pH: 0
DATE OF EXTRACTION: 03/17/98 Conc. Final Vol. 1200 uL
DATE OF ANALYSIS: 03/18/98 Dilution Factor: 50
VOLUME EXTRACTED: 40 mL Report Factor: 1350

SAMPLE RESULTS:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
	Priority Pollutants			
83-32-9	Acenaphthene	ND	8400	
208-96-8	Acenaphthylene	ND	8400	
120-12-7	Anthracene	ND	8400	
309-00-2	Aldrin	ND	8400	
56-55-3	Benzo(a)anthracene	ND	8400	
205-99-2	Benzo(b)fluoranthene	ND	8400	
207-08-9	Benzo(k)fluoranthene	ND	8400	
50-32-8	Benzo(a)pyrene	ND	8400	
191-24-2	Benzo(ghi)perylene	ND	8400	
85-68-7	Butyl Benzyl Phthalate	ND	8400	
319-85-7	beta-BHC	ND	8400	
319-86-8	delta-BHC	ND	8400	
111-44-4	Bis(2-chloroethyl)ether	ND	8400	
111-91-1	Bis(2-chloroethoxy)methane	ND	8400	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	8400	
108-60-1	Bis(2-chloroisopropyl)ether	ND	8400	
101-55-3	4-Bromophenylphenyl ether	ND	8400	
86-74-8	Carbazole	ND	8400	
59-50-7	4-Chloro-3-methylphenol	ND	17000	
91-58-7	2-Chloronaphthalene	ND	8400	
95-57-8	2-Chlorophenol	ND	17000	
7005-72-3	4-Chlorophenylphenyl ether	ND	8400	
218-01-9	Chrysene	ND	8400	
72-54-8	4,4'-DDD	ND	8400	
72-55-9	4,4'-DDE	ND	8400	
50-29-3	4,4'-DDT	ND	8400	
53-70-3	Dibenzo(a,h)anthracene	ND	8400	
84-74-2	Di-n-butylphthalate	ND	8400	
541-73-1	1,3-Dichlorobenzene	ND	8400	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07779
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
95-50-1	1,2-Dichlorobenzene	ND	8400	
106-46-7	1,4-Dichlorobenzene	ND	8400	
91-94-1	3,3'-Dichlorobenzidine	ND	8400	
120-83-2	2,4-Dichlorophenol	ND	17000	
60-57-1	Dieldrin	ND	8400	
84-66-2	Diethylphthalate	ND	8400	
105-67-9	2,4-Dimethylphenol	ND	17000	
131-11-3	Dimethylphthalate	ND	8400	
534-52-1	4,6-Dinitro-2-methyl phenol	ND	17000	
51-28-5	2,4-Dinitrophenol	ND	17000	
121-14-2	2,4-Dinitrotoluene	ND	8400	
606-20-2	2,6-Dinitrotoluene	ND	8400	
117-84-0	Di-n-octylphthalate	ND	8400	
206-44-0	Fluoranthene	ND	8400	
86-73-7	Fluorene	ND	8400	
76-44-8	Heptachlor	ND	8400	
1024-57-3	Heptachlor epoxide	ND	8400	
118-74-1	Hexachlorobenzene	ND	8400	
87-68-3	Hexachlorobutadiene	ND	8400	
77-47-4	Hexachlorocyclopentadiene	ND	8400	
67-72-1	Hexachloroethane	ND	8400	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	8400	
78-59-1	Isophorone	ND	8400	
91-20-3	Naphthalene	ND	8400	
98-95-3	Nitrobenzene	ND	8400	
88-75-5	2-Nitrophenol	ND	17000	
100-02-7	4-Nitrophenol	ND	17000	
86-30-3	N-Nitrosodiphenylamine	ND	8400	
621-64-7	N-Nitrosodi-n-propylamine	ND	8400	
87-86-5	Pentachlorophenol	ND	17000	
85-01-8	Phenanthrene	ND	8400	
108-95-2	Phenol	ND	17000	
129-00-0	Pyrene	ND	8400	

(cont.)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07779
Sample Results Continued:

CAS NO.	Compound	Conc. (ug/L)	RL (ug/L)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	8400	
88-06-2	2,4,6-Trichlorophenol	ND	17000	
	Hazardous Substances			
65-53-3	Aniline	ND	8400	
65-85-0	Benzoic Acid	ND	17000	
100-51-6	Benzyl Alcohol	ND	8400	
106-47-8	4-Chloroaniline	ND	8400	
132-64-9	Dibenzofuran	ND	8400	
91-57-6	2-Methylnaphthalene	ND	8400	
95-48-7	2-Methylphenol	ND	8400	
106-44-5	4-Methylphenol	ND	8400	
88-74-4	2-Nitroaniline	ND	8400	
99-09-2	3-Nitroaniline	ND	8400	
100-01-6	4-Nitroaniline	ND	8400	
95-95-4	2,4,5-Trichlorophenol	ND	8400	
	Other Compounds Quantitated			
	Diphenylhydrazine (azobenzene)	ND	8400	

Tentatively Identified Compounds	Est. Conc. (mg/L)		
Unknown	46		J
Ethanol , 2-butoxy	19000	(1.9%)	J

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07779
Sample Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	NA	21-110
Phenol,d5	NA	10-110
Nitrobenzene,d5	NA	35-114
Fluorobiphenyl	NA	43-116
2,4,6-Tribromophenol	NA	10-123
p-Terphenyl,d14	NA	33-141
2-Chlorophenol-d4	NA	33-110
1,2-Dichlorobenzene-d4	NA	16-110

Note:The suurogates were diluted out because the TIC, 2-butoxyethanol was so high.

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 1 (for 07776) Matrix: Drum Solvent Soluble
DATE OF COLLECTION: Not Applicable Density
DATE OF EXTRACTION: 03/13/98 Conc. Final Vol. 10000 uL
DATE OF ANALYSIS: 03/17/98 Dilution Factor 1.0
WET WEIGHT EXTRACTED: 0.2 g Report Factor 1.0

RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
	Priority Pollutants			
83-32-9	Acenaphthene	ND	300	
208-96-8	Acenaphthylene	ND	300	
120-12-7	Anthracene	ND	300	
309-00-2	Aldrin	ND	300	
56-55-3	Benzo(a)anthracene	ND	300	
205-99-2	Benzo(b)fluoranthene	ND	300	
207-08-9	Benzo(k)fluoranthene	ND	300	
50-32-8	Benzo(a)pyrene	ND	300	
191-24-2	Benzo(ghi)perylene	ND	300	
85-68-7	Butyl Benzyl Phthalate	ND	300	
319-85-7	beta-BHC	ND	300	
319-86-8	delta-BHC	ND	300	
111-44-4	Bis(2-chloroethyl)ether	ND	300	
111-91-1	Bis(2-chloroethoxy)methane	ND	300	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	300	
108-60-1	Bis(2-chloroisopropyl)ether	ND	300	
101-55-3	4-Bromophenylphenyl ether	ND	300	
86-74-8	Carbazole	ND	300	
59-50-7	4-Chloro-3-methylphenol	ND	600	
91-58-7	2-Chloronaphthalene	ND	300	
95-57-8	2-Chlorophenol	ND	600	
7005-72-3	4-Chlorophenylphenyl ether	ND	300	
218-01-9	Chrysene	ND	300	
72-54-8	4,4'-DDD	ND	300	
72-55-9	4,4'-DDE	ND	300	
50-29-3	4,4'-DDT	ND	300	
53-70-3	Dibenzo(a,h)anthracene	ND	300	

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US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 1 (for 07776)
Results Continued:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
84-74-2	Di-n-butylphthalate	ND	300	
117-84-0	Di-n-octylphthalate	ND	300	
541-73-1	1,3-Dichlorobenzene	ND	300	
95-50-1	1,2-Dichlorobenzene	ND	300	
106-46-7	1,4-Dichlorobenzene	ND	300	
91-94-1	3,3'-Dichlorobenzidine	ND	300	
120-83-2	2,4-Dichlorophenol	ND	600	
60-57-1	Dieldrin	ND	300	
84-66-2	Diethylphthalate	ND	300	
105-67-9	2-4-Dimethylphenol	ND	600	
131-11-3	Dimethylphthalate	ND	300	
51-28-5	2,4-Dinitrophenol	ND	600	
121-14-2	2,4-Dinitrotoluene	ND	300	
606-20-2	2,6-Dinitrotoluene	ND	300	
86-73-7	Fluorene	ND	300	
76-44-8	Heptachlor	ND	300	
1024-57-3	Heptachlor epoxide	ND	300	
118-74-1	Hexachlorobenzene	ND	300	
87-68-3	Hexachlorobutadiene	ND	300	
77-47-4	Hexachlorocyclopentadiene	ND	300	
67-72-1	Hexachloroethane	ND	300	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	300	
78-59-1	Isophorone	ND	300	
534-52-1	2-methyl-4,6-dinitrophenol	ND	600	
91-20-3	Naphthalene	ND	300	
98-95-3	Nitrobenzene	ND	300	
88-75-5	2-Nitrophenol	ND	600	
100-02-7	4-Nitrophenol	ND	600	
86-30-3	N-nitrosodiphenylamine	ND	300	
621-64-7	N-Nitrosodi-n-propylamine	ND	300	
87-86-5	Pentachlorophenol	ND	600	
85-01-8	Phenanthrene	ND	300	
108-95-2	Phenol	ND	600	
129-00-0	Pyrene	ND	300	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 1 (for 07776)
Results Continued:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	300	
88-06-2	2,4,6-Trichlorophenol	ND	600	
	Hazardous Substances			
65-53-3	Aniline	ND	300	
65-85-0	Benzoic Acid	ND	600	
100-51-6	Benzyl Alcohol	ND	300	
106-47-8	4-Chloroaniline	ND	300	
132-64-9	Dibenzofuran	ND	300	
91-57-6	2-Methylnaphthalene	ND	300	
95-48-7	2-Methylphenol	ND	300	
106-44-5	4-Methylphenol	ND	300	
88-74-4	2-Nitroaniline	ND	300	
99-09-2	3-Nitroaniline	ND	300	
100-01-6	4-Nitroaniline	ND	300	
95-95-4	2,4,5-Trichlorophenol	ND	300	
	Other Compounds Quantitated			
	None detected	ND	300	

Tentatively Identified Compounds	Est. Conc. (mg/Kg)
None detected	ND

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: BLANK 1 (for 07776)
Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	NA	25-121
Phenol,d5	NA	24-113
Nitrobenzene,d5	NA	23-120
Fluorobiphenyl	NA	30-115
2,4,6-Tribromophenol	NA	19-122
p-Terphenyl,d14	NA	18-137
2-Chlorophenol-d4	NA	20-130
1,2-Dichlorobenze-d4	NA	20-130

Notes:

RL = Reporting Limit
(6E+00 = 6, 1E+01 = 10, 4E-01 = 0.4)
ND = None detected
~ = Approximate
< = Less than
> = Greater than
NA = Not available, due to sample dilution or interference
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with lab blank or trip blank contamination. Values are qualified when the observed concentration of the contaminant in the sample extract is less than ten times the concentration in the blank extract for the common contaminants (phthalates and adipates), or less than five times for the remaining contaminants.
C = This compound is confirmation for the pesticide
J = Estimated value

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776 Matrix: Drum
Solvent Soluble
DATE OF COLLECTION: 03/11/98 Density
DATE OF EXTRACTION: 03/13/98 Conc. Final Vol. 10000 uL
DATE OF ANALYSIS: 03/18/98 Dilution Factor 1.0
WET WEIGHT EXTRACTED: 0.2 g Report Factor 1.0

RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comments
	Priority Pollutants			
83-32-9	Acenaphthene	ND	300	
208-96-8	Acenaphthylene	ND	300	
120-12-7	Anthracene	ND	300	
309-00-2	Aldrin	ND	300	
56-55-3	Benzo(a)anthracene	ND	300	
205-99-2	Benzo(b)fluoranthene	ND	300	
207-08-9	Benzo(k)fluoranthene	ND	300	
50-32-8	Benzo(a)pyrene	ND	300	
191-24-2	Benzo(ghi)perylene	ND	300	
85-68-7	Butyl Benzyl Phthalate	ND	300	
319-85-7	beta-BHC	ND	300	
319-86-8	delta-BHC	ND	300	
111-44-4	Bis(2-chloroethyl)ether	ND	300	
111-91-1	Bis(2-chloroethoxy)methane	ND	300	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	300	
108-60-1	Bis(2-chloroisopropyl)ether	ND	300	
101-55-3	4-Bromophenylphenyl ether	ND	300	
86-74-8	Carbazole	ND	300	
59-50-7	4-Chloro-3-methylphenol	ND	600	
91-58-7	2-Chloronaphthalene	ND	300	
95-57-8	2-Chlorophenol	ND	600	
7005-72-3	4-Chlorophenylphenyl ether	ND	300	
218-01-9	Chrysene	ND	300	
72-54-8	4,4'-DDD	ND	300	
72-55-9	4,4'-DDE	ND	300	
50-29-3	4,4'-DDT	ND	300	
53-70-3	Dibenzo(a,h)anthracene	ND	300	

(con't)
US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776
Results Continued:

CAS. NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
84-74-2	Di-n-butylphthalate	ND	300	
117-84-0	Di-n-octylphthalate	ND	300	
541-73-1	1,3-Dichlorobenzene	ND	300	
95-50-1	1,2-Dichlorobenzene	ND	300	
106-46-7	1,4-Dichlorobenzene	ND	300	
91-94-1	3,3'-Dichlorobenzidine	ND	300	
120-83-2	2,4-Dichlorophenol	ND	600	
60-57-1	Dieldrin	ND	300	
84-66-2	Diethylphthalate	ND	300	
105-67-9	2-4-Dimethylphenol	ND	600	
131-11-3	Dimethylphthalate	ND	300	
51-28-5	2,4-Dinitrophenol	ND	600	
121-14-2	2,4-Dinitrotoluene	ND	300	
606-20-2	2,6-Dinitrotoluene	ND	300	
86-73-7	**Fluorene**	**670**	**300**	
76-44-8	Heptachlor	ND	300	
1024-57-3	Heptachlor epoxide	ND	300	
118-74-1	Hexachlorobenzene	ND	300	
87-68-3	Hexachlorobutadiene	ND	300	
77-47-4	Hexachlorocyclopentadiene	ND	300	
67-72-1	Hexachloroethane	ND	300	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	300	
78-59-1	Isophorone	ND	300	
534-52-1	2-methyl-4,6-dinitrophenol	ND	600	
91-20-3	**Naphthalene**	**11000***	**3300**	
98-95-3	Nitrobenzene	ND	300	
88-75-5	2-Nitrophenol	ND	600	
100-02-7	4-Nitrophenol	ND	600	
86-30-3	N-nitrosodiphenylamine	ND	300	
621-64-7	N-Nitrosodi-n-propylamine	ND	300	
87-86-5	**Pentachlorophenol**	**9900***	**6600**	
85-01-8	**Phenanthrene**	**250**	**300**	**L**
108-95-2	Phenol	ND	600	
129-00-0	Pyrene	ND	300	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776
Results Continued:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	300	
88-06-2	2,4,6-Trichlorophenol	ND	600	
	Hazardous Substances			
65-53-3	Aniline	ND	300	
65-85-0	Benzoic Acid	ND	600	
100-51-6	Benzyl Alcohol	ND	300	
106-47-8	4-Chloroaniline	ND	300	
132-64-9	Dibenzofuran	ND	300	
91-57-6	**2-Methylnaphthalene**	**46000***	**3300**	
95-48-7	2-Methylphenol	ND	300	
106-44-5	4-Methylphenol	ND	300	
88-74-4	2-Nitroaniline	ND	300	
99-09-2	3-Nitroaniline	ND	300	
100-01-6	4-Nitroaniline	ND	300	
95-95-4	2,4,5-Trichlorophenol	ND	300	
	Other Compounds Quantitated			
	None detected	ND	300	

Tentatively Identified Compounds	Est. Conc. (mg/Kg)
C12 Hydrocarbon	2600
Naphthalene,1-methyl-	4100
Naphthalene,dimethyl isomer	7800
Naphthalene,dimethyl isomer	8400
Naphthalene,dimethyl isomer	4500

* = 1:10 Dilution (report factor 11.1)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776
Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	NA	25-121
Phenol,d5	NA	24-113
Nitrobenzene,d5	NA	23-120
Fluorobiphenyl	NA	30-115
2,4,6-Tribromophenol	NA	19-122
p-Terphenyl,d14	NA	18-137
2-Chlorophenol-d4	NA	20-130
1,2-Dichlorobenze-d4	NA	20-130

FACILITY SAMPLED: BATES MILL

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776 Dup
DATE OF COLLECTION: 03/11/98
DATE OF EXTRACTION: 03/13/98
DATE OF ANALYSIS: 03/18/98
WET WEIGHT EXTRACTED: 0.2 g

Matrix: Drum Solvent Soluble
Density
Conc. Final Vol. 10000 uL
Dilution Factor 1.0
Report Factor 1.0

RESULTS:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comments
	Priority Pollutants			
83-32-9	Acenaphthene	ND	300	
208-96-8	Acenaphthylene	ND	300	
120-12-7	Anthracene	ND	300	
309-00-2	Aldrin	ND	300	
56-55-3	Benzo(a)anthracene	ND	300	
205-99-2	Benzo(b)fluoranthene	ND	300	
207-08-9	Benzo(k)fluoranthene	ND	300	
50-32-8	Benzo(a)pyrene	ND	300	
191-24-2	Benzo(ghi)perylene	ND	300	
85-68-7	Butyl Benzyl Phthalate	ND	300	
319-85-7	beta-BHC	ND	300	
319-86-8	delta-BHC	ND	300	
111-44-4	Bis(2-chloroethyl)ether	ND	300	
111-91-1	Bis(2-chloroethoxy)methane	ND	300	
117-81-7	Bis(2-ethylhexyl)phthalate	ND	300	
108-60-1	Bis(2-chloroisopropyl)ether	ND	300	
101-55-3	4-Bromophenylphenyl ether	ND	300	
86-74-8	Carbazole	ND	300	
59-50-7	4-Chloro-3-methylphenol	ND	600	
91-58-7	2-Chloronaphthalene	ND	300	
95-57-8	2-Chlorophenol	ND	600	
7005-72-3	4-Chlorophenylphenyl ether	ND	300	
218-01-9	Chrysene	ND	300	
72-54-8	4,4'-DDD	ND	300	
72-55-9	4,4'-DDE	ND	300	
50-29-3	4,4'-DDT	ND	300	
53-70-3	Dibenzo(a,h)anthracene	ND	300	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776 Dup
Results Continued:

CAS. NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
84-74-2	Di-n-butylphthalate	ND	300	
117-84-0	Di-n-octylphthalate	ND	300	
541-73-1	1,3-Dichlorobenzene	ND	300	
95-50-1	1,2-Dichlorobenzene	ND	300	
106-46-7	1,4-Dichlorobenzene	ND	300	
91-94-1	3,3'-Dichlorobenzidine	ND	300	
120-83-2	2,4-Dichlorophenol	ND	600	
60-57-1	Dieldrin	ND	300	
84-66-2	Diethylphthalate	ND	300	
105-67-9	2-4-Dimethylphenol	ND	600	
131-11-3	Dimethylphthalate	ND	300	
51-28-5	2,4-Dinitrophenol	ND	600	
121-14-2	2,4-Dinitrotoluene	ND	300	
606-20-2	2,6-Dinitrotoluene	ND	300	
86-73-7	**Fluorene**	**670**	**300**	
76-44-8	Heptachlor	ND	300	
1024-57-3	Heptachlor epoxide	ND	300	
118-74-1	Hexachlorobenzene	ND	300	
87-68-3	Hexachlorobutadiene	ND	300	
77-47-4	Hexachlorocyclopentadiene	ND	300	
67-72-1	Hexachloroethane	ND	300	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	300	
78-59-1	Isophorone	ND	300	
534-52-1	2-methyl-4,6-dinitrophenol	ND	600	
91-20-3	**Naphthalene**	**11000***	**3300**	
98-95-3	Nitrobenzene	ND	300	
88-75-5	2-Nitrophenol	ND	600	
100-02-7	4-Nitrophenol	ND	600	
86-30-3	N-nitrosodiphenylamine	ND	300	
621-64-7	N-Nitrosodi-n-propylamine	ND	300	
87-86-5	**Pentachlorophenol**	**9300***	**6600**	
85-01-8	**Phenanthrene**	**240**	**300**	L
108-95-2	Phenol	ND	600	
129-00-0	Pyrene	ND	300	

(con't)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776 Dup
Results Continued:

CAS NO.	Compound	Conc. (mg/Kg)	RL (mg/Kg)	Qualifier or Comment
120-82-1	1,2,4-Trichlorobenzene	ND	300	
88-06-2	2,4,6-Trichlorophenol	ND	600	
	Hazardous Substances			
65-53-3	Aniline	ND	300	
65-85-0	Benzoic Acid	ND	600	
100-51-6	Benzyl Alcohol	ND	300	
106-47-8	4-Chloroaniline	ND	300	
132-64-9	Dibenzofuran	ND	300	
91-57-6	**2-Methylnaphthalene**	**48000***	**3300**	
95-48-7	2-Methylphenol	ND	300	
106-44-5	4-Methylphenol	ND	300	
88-74-4	2-Nitroaniline	ND	300	
99-09-2	3-Nitroaniline	ND	300	
100-01-6	4-Nitroaniline	ND	300	
95-95-4	2,4,5-Trichlorophenol	ND	300	
	Other Compounds Quantitated			
	None detected	ND	300	
	Tentatively Identified Compounds	Est. Conc. (mg/Kg)		
	C12 Hydrocarbon	2800		J
	Naphthalene,1-methyl-	4100		J
	Naphthalene,dimethyl isomer	8000		J
	Naphthalene,dimethyl isomer	8800		J
	Naphthalene,dimethyl isomer	4900		J

* = 1:10 Dilution (report factor 11.1)

US ENVIRONMENTAL PROTECTION AGENCY
REGION I LABORATORY
GC/MS EXTRACTABLE ORGANIC ANALYSIS

SAMPLE NO.: 07776 Dup
Results Continued:

Sample Recoveries For Surrogate Compounds:	Recoveries (%)	QC Range (%)
2-Fluorophenol	NA	25-121
Phenol,d5	NA	24-113
Nitrobenzene,d5	NA	23-120
Fluorobiphenyl	NA	30-115
2,4,6-Tribromophenol	NA	19-122
p-Terphenyl,d14	NA	18-137
2-Chlorophenol-d4	NA	20-130
1,2-Dichlorobenze-d4	NA	20-130

APPENDIX S

Metals Analytical Data

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173

PN: 98175

MEMORANDUM

DATE: March 30, 1998

SUBJ: Bates Mill - XRF Metals Screening Results

FROM: Janet Paquin JP
Chemist

TO: P. Groulx WJA 4/14/98

THRU: Dr. William J. Andrade
Advanced Analytical Chemistry Expert

Analytical Procedure:

One sample was submitted for screening for heavy metals using the Kevex 7000 XRF analyzer. Sample was analyzed as received using target #4 (Mo) and target #2 (La) conditions.

Date Sample Received by Laboratory: 03/12/98

Sample Analysis Starting Date: 03/19/98

File Name: 98175SO.XRF

Bates Mill XRF Screening Results*

Sample 07782 was found to contain no elements above normal background in soil.

Quality Control

Quality Control Check Sample Results:

SRM 2711

Parameter	Found(ppm)	True Value(ppm)	% Recovery
Cu	137	114	120
Zn	319	350	91
Pb	1250	1162	108

LCS 0287

Parameter	Found(ppm)	True Value(ppm)	% Recovery
Ni	-	61	**
Cu	6172	6910	89
Zn	207	187	111
Pb	250	236	106
Cr	-	100	**
Ag	-	22	**
Cd	41	45	91

** No recovery calculated since level in sample too low for instrument to detect.